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THE SIDEROSCOPE AND THE LARGE ELECTRO-MAGNET IN OPHTHALMIC SURGERY.

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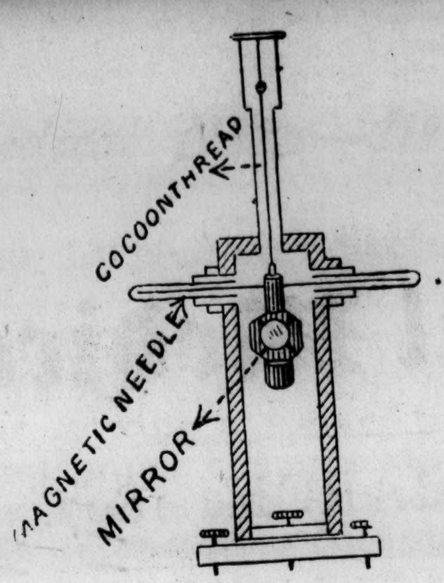
Read before the San Francisco Society of Eye, Ear, Nose, and Throat Surgeons.

During my recent visit to Europe my attention was, at an early date, called to the use of two instruments which had recently been introduced into ophthalmic practice. Both are employed in connection with particles of iron or steel which have perforated the outer coats and penetrated the eyeball. One is the sideroscope, or iron searcher, constructed by Dr. Asmus, which, as the name implies, serves to ascertain whether the piece of iron or steel has really penetrated the eyeball. The other is the large electro-magnet of Prof. Haab, of Zurich (large, in contradistinction to the small hand electro-magnet of Prof. Hirschberg), which, when connected with the constant Edison street current, becomes so powerful that it attracts metallic bodies from the depths of the vitreous forward into the anterior chamber and often out of the eye through the original wound, the injured eye being from ½ to 1 inch distant from the pole of the magnet.

Prof. Haab kindly showed me the *modus operandi* of both instruments in a series of experiments on hogs' eyes. Afterward I saw eyes that had been successfully operated on in the eye clinics of Freiburg and Halle, and I finally had the good fortune of witnessing an operation in Prof. Fuch's clinic, in Vienna, in a case where the foreign body was first located in the eye with the sideroscope and successfully removed by the Haab electro-magnet. I brought these instruments with me, and will now demonstrate their workings to the Society.

The sideroscope of Dr. E. Asmus, consists, essentially, of a very powerful, delicately-poised, magnetic needle, so suspended and equipped that it is as nearly as possible under perfect control, and that its slightest movements may be accurately observed. Its construction is as follows: There is, first, a wooden box 3x3.5x15 cm. The two narrow sides are plate glass windows which may be easily removed. The top is perforated in its center for the insertion of a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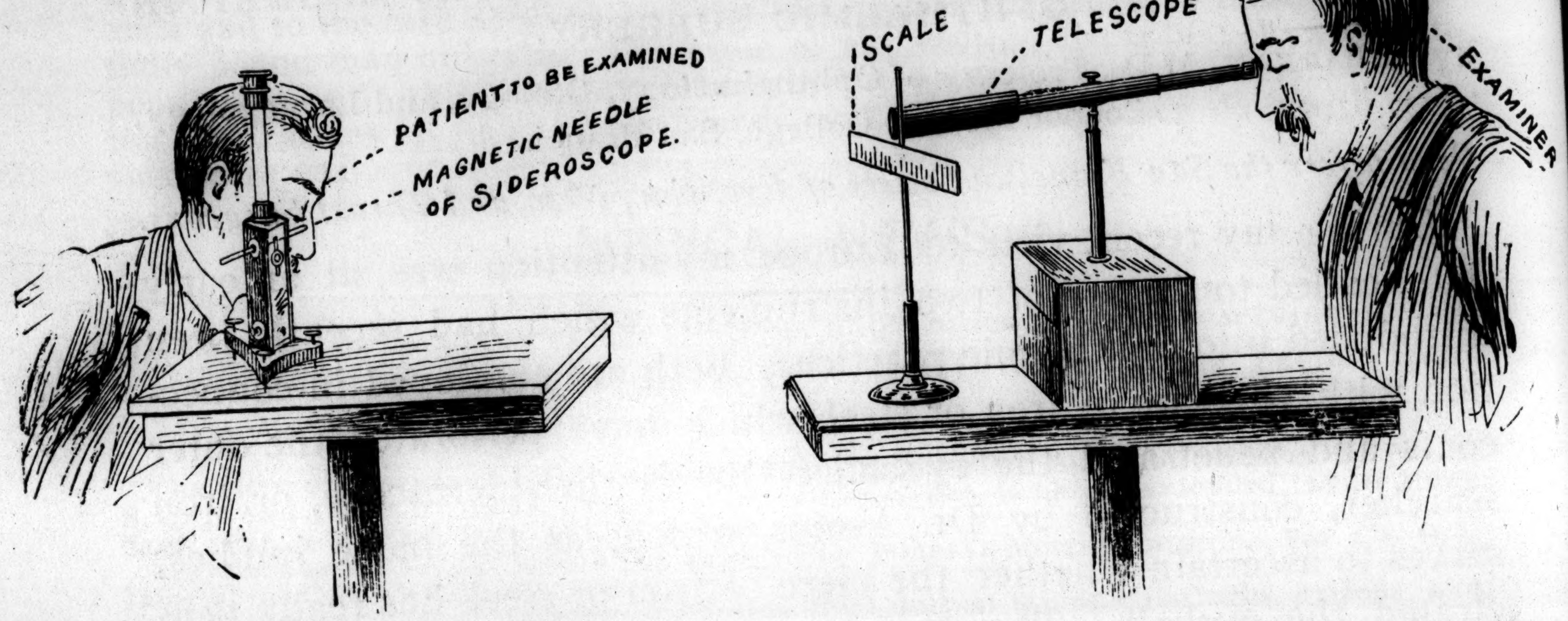
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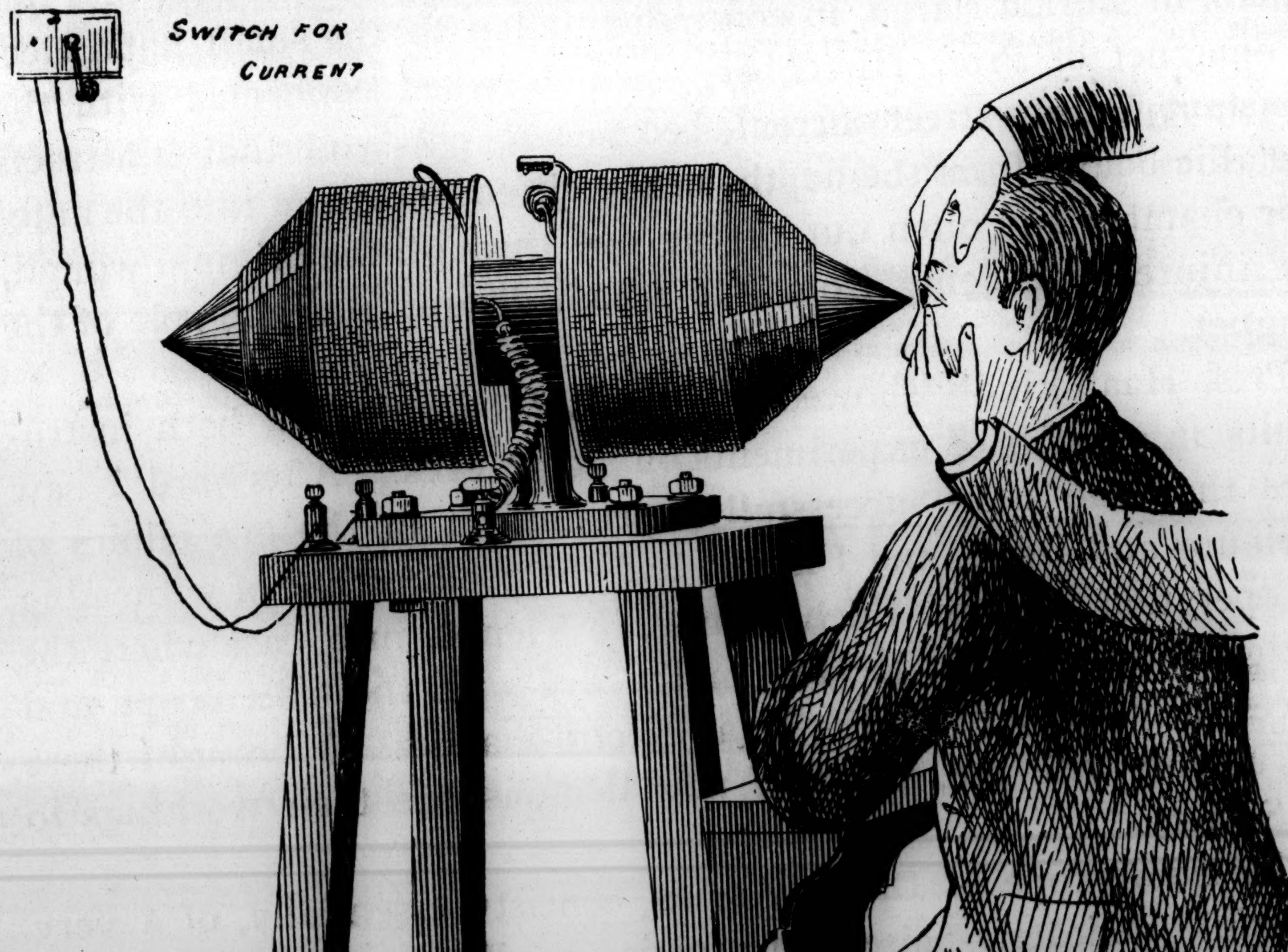
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glass tube, 8 m.m. in diameter and 10 cm. in length. At the top of the tube is fitted a small brass thumb-screw over the barrel of which is wound the cocoon fiber which suspends the needle. The sides of the box are perforated in the center and 2 cm. from each end for the insertion at the top of two glass tubes 8x45 mm., and at the bottom of two brass fittings perforated for the reception of another magnetic needle; one of the fittings is provided with a thumb-screw fastening the needle in position. The box is fastened vertically to a flat wooden tripod, the ends of whose legs are furnished with leveling screws. The center of the bottom of the tripod is fitted with a screw plate of brass for the insertion of a brass tension screw, the object of which is to give rigidity and at the same time a considerable degree of mobility around the vertical axis when the instrument is fastened to the table.

There is then a mirror of highly polished silver, 8 mm. in diameter. This enables one with the aid of a small terrestrial telescope to read a millimeter scale at the distance of 3.5 or 4 m. This mirror is fastened to a hollow aluminium cylinder, 5 mm. thick by 3 cm. long, so that when the needle is slipped into its place through the holes in the sides of the cylinder, and the mirror, needle, and cylinder suspended by the cocoon fiber, the tripod having been leveled, the mirror will face exactly east or west, and its face will be exactly perpendicular to the plane of the horizon.

The construction of the magnet needle is very important. It is made of very hard steel (German foot steel) and very carefully magnetized. Dr. Asmus accomplished this by taking a rod of steel 2 mm. by 10 cm. long and passing a charged Hirschberg's electro-magnet 50 times from the center of the needle toward each end alternately, using the ends or poles of the electro-magnet to make the poles of the magnetic needle. By this means there is obtained a magnet that will sustain at each end three times its own weight, and that when poised *in vacuo*, will oscillate 24 times per minute when thrown out of equilibrium.

Based on many experiments and operations, Asmus is of the opinion that, except in very rare cases, particles of iron and steel in the eyeball, even if very minute, can be detected with the siderscope, and that the location of such bodies is possible if all the meridians are examined.

About 10 per cent. of all eye affections are due to some injury; a little more than half, 56 per cent., of the latter, according to Weidmann, who studied such material in the eye clinic of Zurich, are caused by foreign bodies; 90 per cent. of these implicated the conjunctiva and the cornea, and were of little consequence; but the 0.7 per cent. of foreign bodies in the lens, and more especially the 6 per cent. which penetrated into the vitreous or settled in the retina and choroid, often destroyed the eye, or, at any rate, the vision; 75 per cent. of all foreign bodies penetrating the vitreous, consist of iron. Before the introduction of magnet operations, nearly every case of perforating injury caused by iron or steel was lost, more especially if the foreign body had penetrated the vitreous. Careful investigation as to the result of magnet extraction with the small hand magnet, more than a year after operation, shows that in 203 cases, about $\frac{1}{3}$ of all the successful operations, a more or less important functional success was accomplished, a useful amount of vision was restored in a few, and some little vision in the others; and that in $\frac{1}{6}$ of all the cases the eye, with its external form fairly preserved, was saved. On the other hand, in no less than $\frac{1}{2}$, therapeutic efforts remained useless and enucleation had to take place, subsequent to magnetic operation, or in rare instances phthisis bulbi occurred very slowly. Aside from the direct lesions produced by the foreign body, the disturbances necessarily produced by the destruction of the vitreous by the magnetic sound, the formation of adhesions, hemorrhages, and in many cases retinal detachments, often frustrate the most successful cases. The great hopes founded on magnetic operations at first, have, up to now, been but moderately realized.

Out of 18 cases operated on in Zurich with Hirschberg's magnet, the foreign body was successfully extracted in 13, or 72 per cent. In the 5 remaining cases, or 27 per cent., the foreign body could not be extracted, although every care was taken, and Prof. Haab introduced the magnet 8 times without success. In only one of these cases was the failure explicable, the foreign body was firmly held in the retina and choroid. In 2 other cases the foreign body, after removal of the eye, was found loose in the purulent vitreous body, and the cause of failure to extract the steel could not be determined. Of the 7 cases operated on by me within the last few years, with Hirschberg's magnet, I have twice been unable to remove the foreign body, and enucleation was performed. Of the 5 who, after removal of the foreign body, kept their eyes, 3 could count fingers at from 3 to 5 feet; and the remaining two, (one of them being one-eyed), had useful vision; results which agree with those attained at Zurich.

Although all the contributions to medical literature agree that even immediate successes in these cases are far from being safe, and that the eyes remain endangered for some time, nevertheless the magnet operations, as introduced by McKeown, of Belfast, and by Hirschberg, are a great advance in the treatment of deep-seated foreign bodies. An improvement in the methods of magnet extraction was first briefly communicated by Prof. Haab, of Zurich, at the meeting of the Heidelberg Ophthalmological Society, which took place in 1892. After having employed, with some success, the large electro-magnet of the physical cabinet of the University, he constructed one, the shape of which would enable a good observation to be made of the eye to be operated on, even if it were necessary to place the patient close to the magnet, for, as a rule, it would be the most correct proceeding to bring the magnetic point into contact with the entering point of the foreign body, hoping thus to get the latter out again directly through the wound.

The following experiment is easily made: Introduce a particle of iron, about 0.02 gm. weight through a freshly well made cut, into the rear of a hog's eye, draw it with the magnet, forward, approaching the eye to the instrument with its corneo-sclerotic margin, turn the eye round, bring the wound in contact with the point of the magnet, and the particle of iron will present itself. In the human eye, if the foreign body be of a certain size, and the corneal wound through which it has entered be large enough, and of sufficiently recent date, the foreign body may be extracted directly through the anterior chamber and wound.

It is not, however, sufficient simply to approach the point of the magnet as closely as possible to the entrance point of the foreign body. We must also take into consideration the magnetic direction of force lines which emanate from the magnetic point. For the metallic chip follows those in the first line. In the second line only does the wound channel through which the foreign body has forced its way, form a channel "of least resistance." This channel should be made to coincide in direction with the strongest force lines of the magnet, those which emanate from its tip. The foreign body will then, following those lines slowly, or more rapidly, be attracted to the point of the magnet, and leave the eye along the same channel through which it entered. It is desirable in some cases to change the attractive power of the magnet through a rheostat which regulates the ingoing current.

The patient being seated upon a turning stool, the height of which is properly adjusted, the forearms should rest upon a small wooden support, enabling the head to be bent comfortably forward and approached to the point of the magnet. The magnet proper consists of the core, a cylinder of soft iron, 60 c.m. in length and 10 cm. in thickness, tapering at both ends into conical blunt points. The weight of this nucleus is 30 kg. The point can be detached, isolated and thus be easily disinfected. Upon the iron nucleus are two coils of copper wire, 2 mm. thick. Each roll weighs 28.6 kg. In a thick brass plate fixed to the platform of the wooden supporting frame, is a hollow brass column 5 cm. thick. In this column turns a strong iron cone, which passes through the middle of the iron nucleus, causing the latter to turn easily upon the brass column, like a weathercock. This enables the use of either of the points, one being less blunt than the other.

The magnet is to be used with the constant (Edison) street current only. In Zurich the dynamos of the Physical Laboratory of the University are used. Alternating currents cannot be used, unless, as I saw it in Vienna, by means of a suitable converter, changing it into a constant current. According to the thickness of the copper wire used for winding the magnet, a current of the strength of 6 to 8 amperes with 50 to 60 volts tension, may be used. The instrument will, however, stand for a short time, a current of 20 to 30 amperes, even if the coils are arranged one after the other. If the coils be superimposed, such a strong current is well borne. Experiments show that the intensity of the current is of great importance. At 10 mm. dist., with a strength of 4.5 amperes, the magnetic force is 23 gm. By doubling the intensity of the current, the magnetic force is 93 gm., or four times as strong.

The importance of distance is shown by the following figures: At a distance of 5 mm. the magnetic force with 6 to 8 amperes is 133 gm. If the distance is increased to 15 mm. the magnetic force of the current intensity amounts only to 18 gm.—that is, 7 times weaker. The force of attraction is also in a large measure dependent on the size of the foreign body. Small foreign bodies are attracted with much weaker forces than large ones. Whilst it is easy to attract in a hog's eye a chip of 0.02 gm. with a current of 8 amperes in all directions through the uninjured vitreous from a distance of 22 mm. within 3 to 6 seconds, this is much less easy if the foreign body is smaller.

In the latter case a much longer time will elapse before the appearance of this foreign body, even if the circuit be opened and closed several times in quick succession. A foreign body, however, so excessively small as this, very exceptionally penetrates the vitreous. Haab is of opinion that most of those that do so, certainly all above 0.02 gm. in weight can be attracted forward either behind the iris, or into the anterior chamber. In connection with the question how the chip travels through the eye when attracted by the magnet, Haab made the following interesting observation and experiment: Given a chip of 2 cg. weight in the posterior part of the vitreous, the magnet will attract it each time at once to that part of the iris in front of which the magnet point is applied, if this be applied at the corneo-sclerotic margin. If it is applied to the middle of the cornea, it is impossible to foresee in what part of the circumference of the iris the foreign body will appear, for in such a case it never travels through the lens directly towards the magnet point, but always appears somewhere behind the ciliary portion of the iris. It slides around the lens taking the shortest route, the way offering the least resistance.

If very forcibly attracted, as in the case of a large-sized foreign body, the route is somewhat shortened, and the edge of the lens is perforated. This sliding around the lens by the foreign body without injuring the former can be studied in the lens of a hog's eye, freshly and carefully removed. A very small chip applied to the posterior pole of the lens if attracted by the point of a magnet, direct in front, will not perforate the lens, it will direct its point towards the capsule without even tearing it. If the foreign body happens to glide even a little towards the edge of the lens, it suddenly turns around the edge and towards the magnet. This gliding around the edge of the lens sufficiently explains the fact that the foreign body often makes its appearance at a different place behind the iris than would have been supposed.

Naturally this leads to the question, Whether this method of extraction of foreign bodies by the magnet does not unduly endanger the lens? In replying to this, we must remember that the perforating foreign body has already in many cases injured the lens. If the previously uninjured lens should in an exceptional case happen to be injured by the foreign body coming to the front, the misfortune would not amount to much, and the loss of the lens could well be borne in exchange for the successful removal of the foreign body without further injury to the vitreous. An injury which must necessarily be caused by the passing of the small magnet through the vitreous is to be regarded as more serious than an injury to the lens. As a rule an injury of the lens may be avoided, and where it is most imminent, as in the case of large foreign bodies, these must be attracted with less force. Experiment teaches that the magnet point must be applied not to the middle, but to the periphery of the cornea if the wound channel does not pass through the lens, or laterally through the sclera.

In extracting the foreign body the zonula is easily passed; not so, as a rule, the iris. The magnet may become involved in it, but it will not perforate it, even though used with force. By means of the foreign body one may draw the iris anteriorly on to the other side, as one chooses. Perforation of the membrane does not take place; the patient at the same time experiencing a great deal of pain. In such a case, by an incision at the corneal margin, the removal of the chip can generally be effected with the small hand magnet introduced into the anterior chamber. If an attempt to remove the foreign body through iris and corneal incision were made there would be great danger that the whole iris might be torn out. The magnet is a valuable agent for ascertaining in doubtful cases whether the foreign body in the eye is of iron or steel, for only in those cases when the splinter is firmly wedged, as in the fundus oculi, will the sensation of pain be wanting.

Haab believes those chips of iron will rarely fail to be removed by the large magnet. He is also of opinion that we are fully justified in making the attempt in cases where nothing is known of the position of the chip within the eye, or where the case affords but poor chances.

I have thus far operated on one case with this large electro-magnet in which the foreign body imbedded in the vitreous was promptly drawn forward and out through the same wound by which it had entered the eye. Severe reaction followed a few days later, and the case is still under treatment.

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HEMATOPHILIA, OR THE HEMORRHAGIC DIATHESIS.

By H. St. George L. Hopkins, M.D., Fresno, Cal.

Read before the San Joaquin Valley Medical Society.

An uncontrollable propensity to bleed is the chief character of the disease commonly known as hematophilia, or the hemorrhagic diathesis. Upon the slightest breaking of the surface, a scratch of the gum, or puncture of the finger, the blood breaks forth incessantly, and no more effort to stay its flow appears to be made, either by contraction of the blood vessels, or by clotting of the blood, than if the stream were water, and the tube it flows through a metallic one. A case of the following kind is frequently met with: In this family three brothers bled to death, one from extraction of a tooth, one from a scratch of a pin, and the other from a fall, which caused death by hemorrhage. Instances of this disease are rare in any country in comparison with their frequency in certain parts of Germany.

It has been sometimes observed that the characteristics of the hemorrhagic diathesis may be induced in a young and previously healthy person by the deprivation of fresh air, light, and nourishing food, and by confinement in low, damp situations, and that they disappear upon replacing the individual in conditions favorable to health. It does also, undoubtedly, happen that without exposure to unhealthy influences, and without traceable hereditary taint, the hemorrhagic diathesis shows itself for the first time in adult life, and remains as a persistent disease thereafter. (Holmes.)

Most commonly it appears as a congenital affection, and it is too often ineradicable. It does not always select unhealthy subjects, or any particular age. Infants die of it as the cord is cut, or when the stump separates. Growing children and adults lose immense quantities of blood, and may bleed to death in spite of every well directed effort on the part of the surgeon. Some live until past the age of 60 years, and, although they have bled severely at different times, die at last of a disease having no connection with the original trouble.

The diathesis prevails equally in the males and females of a family, although it may not show itself, for while the hemorrhage comes on amongst the former, and is fatal to them in their boyhood, the girls mostly survive the age of childhood, and exhibit the diathesis by dying of some inordinate hemorrhage of the uterus, or in childbed; and their children in time exhibit the same tendency. Still, men who have the hemorrhagic diathesis may marry healthy, strong women, and not seem to transmit the disease to their children.

The bleeding is sometimes spontaneous, sometimes the result of a wound. The former may be periodical, say once a year, and on the fourth or fifth occasion prove fatal. But whether the spontaneous bleedings recur at regular or irregular periods, they continue for a long time, and drain the body of nearly all the blood, and often cause a persistent disease thereafter. (Holmes.)

When the hemorrhage occurs from a wound it differs in its severity according to the nature of the injury. Clean cut wounds often do not bleed at all, even if quite extensive, until the wound begins to heal; then the hemorrhage sets in and is always most difficult to stop. Sometimes in these cases venesection is resorted to as a means of relieving the immediate danger, yet this measure cannot be regarded as free from danger, for some have died of bleeding from the incision. An instance has been recorded of a boy having been found dead in his bed of hemorrhage from a lancet wound, the bandage remaining firm upon the cut. (Holmes–Fordyce.)

The most uncontrollable hemorrhage is that from lacerated wounds, and those which have been kept from closing, such as leech bites, and incisions from cupping. Small contused and lacerated wounds bleed more than large ones, and it has been recommended to enlarge the wound to control the hemorrhage. (Fordyce.)

The most commonly fatal injury is the extraction of a tooth, the lacerated vessels of the alveolus rarely closing. The blood which first flows from the wound differs in no manifest quality from that of a healthy person, for it coagulates after flowing off, although it does not do so with any good effect on the wound. As the hemorrhage continues this character of the blood is lost; it no longer coagulates; it becomes thin and watery, and breaks forth more readily. The corpuscles lose their power to arrange themselves in columns, but remain scattered over the plate and in the field of the microscope.

The subjects of this particular disease are liable to hemorrhages in various tissues, to ecchymoses on all parts of the body, and to the formation of bullæ on the skin, which may and do become filled with blood. The readiness with which blood oozes into the tissues in these cases is of importance from a medico-legal point of view. It is apt to cause the belief that great and undue violence had been used on the body. The disease affects the whole social relations of the sufferer, however fitted by mental power or physical strength for any occupation which requires him to handle edged tools. The army and navy do not admit such; agriculture is out of the question; none of the hardier handicrafts may be chosen; only such can be pursued where there is the least chance of wounding one's self, or being wounded by others.

In early childhood, but oftener after full growth has been reached, these "bleeders," as they are called in Germany, are liable to affections of the joints, simulating rheumatism, with considerable swelling. In some families no member who has the diathesis fails to suffer with articular disease, as is the case with a family I have under treatment. After the pain has passed from joint to joint, it is often followed by a painless enlargement of the knee joint, not unlike white swelling. This has also been noticed in the family under treatment. As the joints enlarge some of the habitual indications of the diathesis will cease, and not recur as long as the joints continue swollen.

The disease seems dependent upon one of three distinct conditions:

1. It may be congenital and not unfrequently hereditary, especially in the male line. In some families males only have been affected, and the diathesis has been transmitted to the fourth generation

through the females only, who, though they themselves are but slightly affected, still have male children decidedly so.

2. The hemorrhagic diathesis may occur in individuals who have soft flabby textures, the tissues having lost their normal contractile power. In such individuals, trivial wounds are oftentimes followed by abundant and continuous hemorrhage.

3. The hemorrhage may depend upon a morbid state of blood itself, in consequence of which it has lost its coagulability, the fibrin being insufficient in quantity; and this is especially apt to occur as a consequence of diseases that produce a disorganized state of the blood, such as chronic jaundice and albuminuria.

The healthy proportion of fibrin in the blood is as 3:1000. It may be found lower or higher (Andral). The fibrin is sometimes remarkably destitute of coagulating power, and this is evinced in persons who are suddenly destroyed by lightning, by acrid vegetable poisons, by excessive bodily fatigue, yet the individual had apparently been in the enjoyment of good health. Under such circumstances, the most trifling injury may prove fatal, since the only means by which hemorrhage can be successfully combated is taken away (Gross). To what is this coagulating property of the blood to be ascribed? Is it owing, at least in part, to an insufficient supply of nervous power, upon the presence of which the vitality of the fluid in question essentially depends? This seems very probable.

All the observations which have been made upon the nature, history, and progress of this disease may be resolved into two essential and congenital conditions: an abnormal vitality of the blood, and a delicate construction of the capillaries. The circumstances of the disease appear to support the following propositions:

1. Its intermitting character.
2. The strong action of the arterial system, as shown by the mental excitement before the attack.
3. The immunity from excessive hemorrhage, even after wounds, in the intervals between the attacks.
4. The rare occurrence of bleedings in persons who have some steady outlet, as hemorrhoids.
5. The facility with which bleedings are sometimes prevented or arrested by means which lower the vitality of the blood, as diarrhea, or smart purging, etc.
6. The readiness with which ecchymoses form under the skin, from very trifling injuries.

In many cases of moderate hemorrhage the blood which has escaped and may have coagulated in the wound, no matter how produced, appears to be the cause of the persistence of the bleeding. Removal of the clot and exposure to the air causes a cessation of the oozing and gives time to apply remedies. (Tembley). Elevation of the bleeding part exerts an influence for good. A full dose of opium is often of great service in arresting the oozing. Glauber and Epsom salts are recommended to produce smart purging (Otto.) The actual cautery will at times be successful after all other styptics have failed. The infusion of arnica is strongly recommended. (Wachsmuth.) Long continued pressure has proved successful in bleeding from the alveolus. Too often, however, the surgeon is disappointed in his styptics.

Ergot, in the shape of fluid extract, with iron, is the best combination given internally, after the force of the circulation has been reduced. The hypodermic use of the fluid extract of ergot has been recommended and found to answer well. (Agard.) The patient should be kept out in the open air, on light unstimulating diet, to strengthen the general constitution. Hemorrhages arising from wounds in these subjects do not appear to yield so readily to the same treatment as those that are spontaneous. Glauber and Epsom salts do not cut them abruptly short. The same general treatment is recommended in all forms of the disease.

THE INFLUENCE OF CERTAIN HEART MURMURS AND OF FAMILY PHTHISIS IN ESTIMATING A RISK FOR LIFE INSURANCE.

By FRANK DONALDSON, B.A., M.D., San Francisco, Cal., sometime Scholar in Biology, Johns-Hopkins University.

A very large experience in life insurance work has convinced me that the wholesale rejection of those applicants in whom the examiner has diagnosed a "heart murmur," without reference to the seat or cause of the same, is wrong. I am not speaking of actual valvular disease, but of those murmurs which we designate as functional. I am well aware that a large number of medical examiners are incapable of making a differential diagnosis in any heart trouble; I am speaking now of those who can, but who, from habit, because it is so set down in the instructions to medical examiners, answer the question relative to this point with a simple "yes."

Speaking generally of heart murmurs, the importance of prognosis is not, as a rule, sufficiently considered by medical men. There is now, and always has been, a tendency to overestimate the importance and to take an unnecessarily gloomy view of a murmur, without considering the position, the condition of the heart, and the symptoms connected or not connected with it.

Among those skilled in diagnosis, however, the presence of a murmur is not now regarded as an infallible indication of unavoidable and early death. We differentiate one murmur from another and distinguish between what are conditions of passing debility and anemia and the graver ones of dilatation, valvulitis and fatty degeneration. The point I would consider is, to what extent should a functional murmur influence the acceptance of a risk for life insurance.

Functional murmurs are those which depend upon temporary and curable conditions, and are the result of general debility and anemia as well as of overwork and excitement, or acute dilatation of the heart. As a matter of fact, in life insurance, they are most frequently met with in overworked business men in our larger cities, and in my own experience, during the hot summer weather. These functional murmurs are invariably systolic in time and are, as a rule, softer and less harsh than those of organic origin. They are heard most frequently over the true pulmonary area, but also over the mitral region and over the aorta.

Sansom found that 57 per cent. of all his cases presented the maximum intensity in the pulmonary area, and we know that the great majority of these murmurs are found over the pulmonary artery—they are generally considered to be very infrequent, but it is an interesting, and, to life insurance examiners, an important fact, that Guitéras, of Charleston, actually found 62 systolic pulmonary murmurs in a series of 100 cases. Of course the clearness of the murmur depends upon the proximity of the artery and the relative thinness of the chest wall, and it is generally acknowledged that a systolic pulmonary murmur may be developed in a perfectly healthy individual, by modifying the act of breathing; a point of extreme importance with reference to life insurance. They are actually confined to the expiratory act, being loudest at the beginning; sometimes, however, they do not disappear, even on the deepest inspiration. Another interesting and important peculiarity of this murmur is, that it is very frequently inaudible in the erect position, but is greatly increased when the recumbent posture is assumed. Finally, the fact that a systolic murmur in the pulmonary area may be found in a perfectly normal heart, cannot be too forcibly emphasized. I cannot here go into their causation, interesting as it might be.

In the mitral region functional murmurs are rare. When present here they are soft in character, but, contrary to the general opinion, they conform to the organic murmurs in a large proportion of cases, in this, that they are propagated toward the left and are heard at the back. Indeed, it seems probable that these murmurs are caused by a veritable though transient incompetency of the valve, resulting from defective muscular action, that condition known as "curable mitral regurgitation." Certain it is that murmurs occur that resemble in everything except harshness the sounds accompanying organic mitral insufficiency, and yet at the autopsy the valve is found to be normal. But in these cases we do not have the displaced apex beat, nor the forcible impulse that usually goes with organic insufficiency of the mitral valve.

Functional murmurs over the aorta, appear in the course of acute febrile diseases and also in those who are anemic or are under great strain and are overworked and nervous.

If in a life insurance examination, a very soft systolic murmur is heard in the pulmonary, aortic, or mitral area; if there is no history of rheumatism or syphilis, and we have marked anemia, and that condition known as "overworked," and where the person is under 40, it seems to me to be but fair to the applicant to postpone the risk to see if the murmur may not disappear. I made it a rule some years ago, where I had reason to conclude that the murmur was functional, whether over the mitral or aortic area, to postpone the risk, and I have had the satisfaction of seeing the murmur disappear in a number of cases, and the applicant obtain his insurance, of which surely it would have been most unjust to have deprived him. I would, therefore, emphasize the importance of deciding exactly the significance of any given murmur before rejecting a person for life insurance.

Though not immediately connected with the subject in hand, I would refer to those cases rejected by the local examiner, in which he thinks he has discovered heart hypertrophy, as such, but without a murmur. I have seen a number of cases where this diagnosis had been made, because the apex beat was displaced, but where the heart had, in reality, been drawn to one side by a right or left pleurisy. It goes without saying that idiopathic hypertrophy is very rare. In the above cases the injustice to the applicant is done by the carelessness of the local examiner.

I now come to the second consideration of my paper, family phthisis, and here we shall find that the fault lies in the narrowness of the medical board at the home office.

I have often had occasion to differ with the hard and fast rules laid down by the medical director of more than one company as to the extent to which certain diseases should prejudice a risk for life insurance, but especially with reference to syphilis and phthisis. At present I shall confine myself to the latter disease. The rules which still hold in many of the companies, as to family phthisis, were made when consumption was considered purely hereditary, and the tubercle bacillus was not known to be abroad in the land. And, indeed, the paragraphs on phthisis framed by certain medical directors in those valuable monographs called "Instructions to Medical Examiners," so religiously followed by the country examiner, remind me, sometimes, of the command of the French officer who, as he led his men into a sham battle, cried: "*Suivez moi, mes enfants mon derrière est rond.*"

As I have said, I have had many differences with medical directors on their rulings about heart murmurs, syphilis, and consumption, and on the gross injustice so often done to the insured in such cases. As a rule, I was presented with another copy of the instructions to medical examiners, and had a few "statistics" from the company's experience thrown at me.

I was not born with any reverence for statistics, and a long experience with life insurance examinations, examiners and examination papers in this country and in Europe, has generated in me a profound contempt for any statistics drawn from life insurance papers.

I knew that a judgment founded upon such facts worked great injustice, and my attention was, last winter, forcibly called to the matter by a monograph issued by one of the largest companies, entitled "The Value of Family History and Personal Condition in Estimating a Liability to Consumption." This was reviewed by me editorially in the *Medical Record* of February 22, 1896.

The conclusions in this paper were founded on the statistics taken from the company's life insurance examination papers, and it is the worse case of statistics I have yet met with.

When Garibaldi came to England there was some talk of his marrying a rich widow devoted to his cause; the objection was made that he had a wife already. "Oh," said Beresford Hope, "We'll get Gladstone to explain her away."

Anything under the sun can be explained or proved by statistics. In my opinion they don't even lie truthfully. I bear forcibly on this point, for I know that for many years, and even now, the applicant with family phthisis is not treated fairly, nor his case, except in a few companies I might mention, dealt with in accordance with our modern knowledge of this disease.

It is a terribly serious thing for a man to be declined for life insurance; such a rejection often puts it beyond his power to leave behind him any protection for his wife and children, and I am satisfied the time has come for a change of methods in dealing with those who have a history of family phthisis. The company should, of course, use the greatest care in the selection of its risks; but in this case I ask for a little liberality toward the applicant—a liberal judgment based not on sentiment, but on our scientific knowledge of the disease. Some one said, "God is good, and the Devil isn't bad either." I often think some companies might remember this in dealing with those whose family is supposed to be tainted with consumption.

The purpose of life insurance may be, as a youth declared in an English civil service examination paper, "to provide funds for those who are born in a state of impecuniosity;" but it certainly is not to provide consumption for those who happen to have had a case or two of this disease in their family or connections.

There is an unwritten law in many companies that the death of one parent from phthisis, and the applicant under 30 years of age, or of both parents, and the applicant under 40, is cause for rejection. The following, taken from a late series of rules by a very large company, emphasizes this point:

"The presence of the following diseases and conditions in any person applying for insurance will cause the rejection of the application, unless the applicant presents himself for an examination by the Medical Director at the home office."

Under division No. 4:

"*Consumption in the Family:* (1) Where more than three cases have occurred. (2) Where the applicant is under 20, and one case has occurred. (3) Where under 30, and one parent has had consumption. (4) Where under 35, and any two members have shown the disease. (5) Where under 50, and both parents have had the disease."

In view of our present knowledge of this disease, it is scarcely necessary to point out the stupidity of such rules, and the great wrong which adherence to them would work in many cases.

You will notice, however, that in these rules especial emphasis is laid upon the *age* of the applicant, and yet, in delightful contradiction, you will find that in their printed instructions many medical directors call particular attention to the fact that "the importance which has been attached to a family record of consumption is *not modified by the age of the applicant.*"

This is, of course, true, but I would respectfully call their attention to the fact that it is not, after all, the age of the applicant at the time of insurance on which we should base his predisposition, but (leaving out for the present the question of weight) upon his age at the time of his mother's illness and death from phthisis; and in rare instances on his age at the time of his father's illness and death; as, for instance, when there is a distinct and constant taint on the father's side, which, however, is exceedingly rare.

The truth is that, as I have said, most companies still stick to the old idea that phthisis is essentially and purely an hereditary and not an infectious disease, forgetting that it is the soil which is transmitted, and that environment, neglect of care of self, dissipation, climate, weight, and a thousand and one other things develop or lessen the tendency to phthisis.

To show what the poor applicant with an apparent history of family phthisis may have put against him, I will quote from the editorial upon the monograph above mentioned:

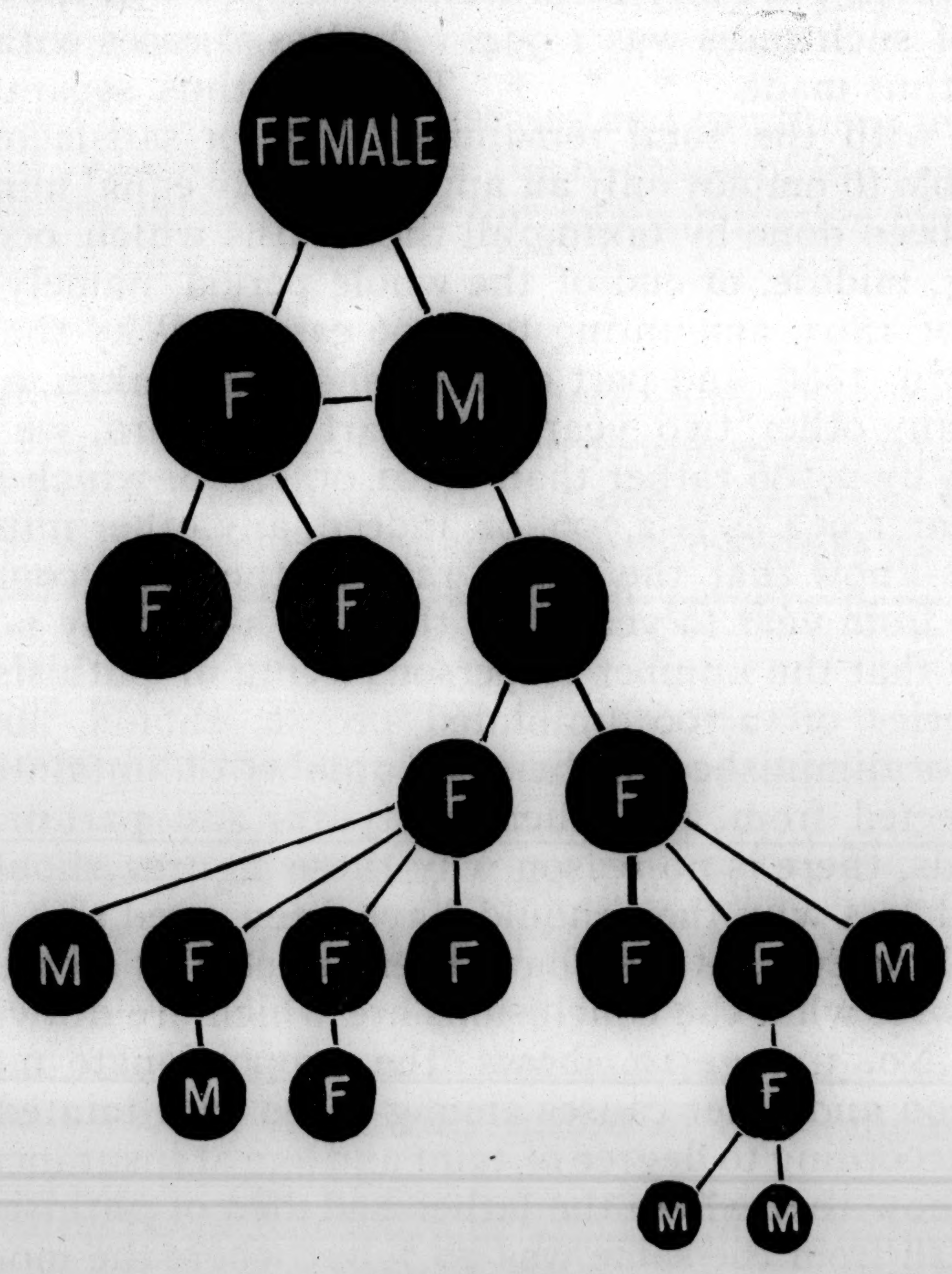
"In the report before us, the tables are made up from figures taken in an extraordinary way. The material used for this report consists of 22,085 cases, being the entire mortality during the 15 years from 1879 to 1893. * * * From this material all the cases were selected which gave any record of consumption in the family. The number of such cases was 1,994. A class of cases with 'tainted record' was thus made. * * * The class thus separated might be compared with the 'total remaining,' but for satisfactory reasons it is preferable to employ only an approximately equal number of cases. This has been done by taking all the deaths which occurred in the beginning, middle, or end of the whole period, namely: 1879, 1886, and part of 1893, amounting to 2,706 cases. Why the cases occurring in 1879, 1886, and part of 1893 should be taken, any more than those of any other two years and part of a third, we fail to understand. Why 2,706 rather than 2,101 or 1,200, which is as approximately near 1,994 as is 2,706, or, indeed, any other number, may we ask? We know that the death rate in the great companies varies very little from year to year, but there is absolutely no ground for supposing that the number of persons dying of phthisis, to-wit: 333 in this series of 2,706 untainted people, should not be greatly increased or diminished in the same number of untainted cases arbitrarily selected from any other two years and part of a third. In other words, there is no reason why these figures should have been taken, and less why they should have been used as a basis of comparison. However, as they have been selected as a basis of comparison, let us see what the conclusions are which are drawn from them.

"Table No. 3, page 10, shows 'the proportionate mortality from consumption and other causes among those with tainted record, and arranged according to degree of taint and age at insurance.' Here the statistics show that where the father had died of phthisis the percentage of death from the same was 20.7, but where the mother had died it was 15.5; and that this percentage was greater for all ages up to 50 and over, except for the years of life between 30 and 39, where it was practically the same. These conclusions are absolutely contradicted by scientific facts and medical experience. It is known that tuberculosis in the father is of infinitely less importance than in the mother. Osler says in this connection: 'There is no evidence that a tuberculous father can directly transmit the disease, and experimental evidence is also negative.' On the other hand, 'we know that maternal is much more common than paternal inheritance.'"

On the other hand, experiments on the lower animals, reports of competent veterinary pathologists, and a few isolated but well authenticated cases in the human subject have been reported, in which direct transmission of the bacillus from the mother to the offspring, have established the fact of transmission beyond a doubt.

Gärtner, in his classic work, showed that of 9 female mice, inoculated with the tubercle bacillus in the lungs, 7 produced tuberculous young. On the other hand 22 male rabbits were inoculated with tubercle in the testicle, and although the semen actually contained the bacillus, they failed to produce tuberculous young.

The family tree shown in the accompanying diagram, of six generations, tells its own tale. The transmission is almost constant through the mother.



1783 TO 1897.

In the cases referred to above, the compiler of the statistics had no proof that those who did die from phthisis inherited it from the the mother or father; he knew nothing of the surroundings, life, and association of the cases selected, which we now know influence so greatly the development of consumption. As Hilton Fagge remarks, it is impossible to draw the line between hereditary and accidental phthisis. To quote again:

"Another deduction from Table 3: 'On one point, however, the evidence is *conclusive* [the italics are ours], namely, that the death of a brother or a sister is of equal significance with that of a parent.' Practical experience also teaches us that this conclusion is as far from fact as possible. The death of a brother or sister does not prove a necessary predisposition if the parents are healthy. Where it does happen it is purely accidental, and in former years, more especially before the infection of tuberculosis was recognized, was caused by the intimate relation and constant association of one sick child with others in the same family; a condition of things which is happily becoming less every year. We cannot show more clearly the utter falsity of the conclusions drawn from such statistics as these than to quote—it needs no comment—the conclusion on page 12, to wit: 'The subdivision showing a record of 'a parent and brother and sister dead of phthisis,'' gives the very smallest percentage of consumption of any class with tainted family record, equal in fact to the general class with no taint.' We have quoted at length from this report, for it seems to us it is a very serious matter to send out such misleading and unscientific work on such an important and vital subject as tuberculosis. We hate to think of the gross injustice that will be done and the suffering inflicted on widows and orphans where the bread winner has been 'turned down,' because of a partial or strict adherence to such utterly false conclusions.

"Apart from these particular statistics we very much question the worth of any statistics as to the comparative mortality of tuberculosis or the value of family history in estimating a liability to phthisis, drawn from life insurance examination papers. In the first place, any man of experience as an examiner for life insurance knows how very many persons are ignorant, really or with malice, of the cause of death of parents and brothers or sisters, and that a history of phthisis, more than of any other disease, is denied. And this is done with impunity in the majority of instances, for it is rarely possible to see the death certificates. In the writer's experience it is the one thing which many men will lie about; they know or fear it may mean rejection. And so we have the cause of a death really due to consumption put down as due to pneumonia in the majority of instances, and to Heaven knows what else in others. Furthermore, many cases of incipient phthisis are to-day recognized early and by proper treatment cured, which, up to a few years ago, and certainly much later than the year 1878, with which year the cases in the report began, would have gone on to premature death. Again, in a life insurance paper the simple statement is made, 'died of consumption.' Whether it is acute tuberculosis of the lung or fibroid phthisis, a very different thing; whether really inherited or accidental, as a wife being infected from a husband, a husband from a wife, a sister from constant nursing of one of the family, etc., and a thousand and one other considerations, is not stated, all of which goes to invalidate any conclusions which may be drawn from the answers made in a life insurance paper."

So much for statistics in life insurance. The Bible tells us not to put our faith in princes; there were happily no statistics in those days.

This paper has been a long one, but the importance of the subject is readily seen. When you reflect what a life insurance policy means to so many, no one who can justly claim such protection should be denied it, because of the hard and fast rules laid down years ago by life insurance companies as to syphilis and phthisis, and before modern methods of prophylaxis were practised, and the real nature of consumption was known.

722 Sutter street.

GASTROSTOMY, WITH A REPORT OF TWO CASES.

By C. N. Ellinwood, M.D., Professor of Clinical Surgery, Cooper Medical College, San Francisco.

Read before the San Francisco Medico-Chirurgical Society.

The term gastrostomy, derived from two Greek words, signifying stomach and mouth, indicates that surgical procedure for establishing an artificial fistula or mouth to the stomach, usually for the purpose of feeding when from any cause the esophagus has become occluded. The operation is advised when the esophagus is impassable, or rapidly becoming so, from any cause that cannot be removed.

Until quite recently the common practice of rectal feeding in such cases has obtained, but the difficulties, dissatisfaction, and inefficiency of long continued feeding by rectal enemata, have encouraged surgeons in these latter years to still utilize the stomach and the other digestive organs, even when the function of the esophagus has been destroyed. Modern methods of gastrostomy, aided by asepsis, have now placed this operation among the enduring facts of science.

The stomach is frequently opened for the removal of foreign bodies from its cavity, and incised and sutured for the cure of perforating ulcers, and I observe that quite often such procedures are erroneously called gastrostomy, while gastrotomy more correctly defines such operations. Gastrostomy is most frequently indicated and performed for carcinoma of the esophagus, with the result of relief from pain, prolonging life, and circumventing an agonizing death from starvation. Of course the patient is not cured of his destroying disease by this procedure, but those who have witnessed the improved conditions and comparative comfort following the operation, the blessing of hope, and the reasonable expectation of adding months, and even years, to one's life, is certainly a boon which sufferers have a right to demand of the surgeon's skill.

Gastrostomy is most satisfactorily performed and most unquestionably demanded for cicatricial and fibrous stricture of the esophagus, and also for diverticulum, where it offers a reasonable probability of a cure of the malady.

Sédillot, in 1849, was the first to perform the operation of gastrostomy, and named it, in French, "Gastrostomie." Since then the procedure has passed through several stages of evolution, and yet there remains much to be desired in its simplification and to insure the stomachal peristalsis being impaired as little as possible by adhesions and fixation to the abdominal wall.

Until recently most gastrostomies have been performed in two stages, the first consisting essentially in exposing the stomach as closely as possible to its cardiac extremity and attaching it by sutures to the abdominal wall; the second, a few days later, when adhesions have formed, consists in firmly and securely walling in the wound from the abdominal cavity, opening the viscus, and introducing and fastening there a tube, through which to supply food.

Oscar Witzel, in 1891, and Albert, in 1892, have given us the best modern methods for gastrostomy, and are excellently illustrated by Dr. Thomas F. Chevasse, of Birmingham, England, in the *Lancet* of July, 1896. Witzel makes his primary incision a finger's breadth below the left costal cartilages from the median line 3 or 4 inches, transversely outwards. The rectus muscle having been laid bare, its fibers are separated, held apart and the peritoneal cavity opened, a portion of the stomach is now drawn outside the wound, packed around with warm gauze or sponges, opened on its anterior surface by a small incision near the cardiac end, and a fair-sized drainage tube, say 34 French, introduced. The tube should be 5 inches long; one inch is introduced into the cavity of the stomach, and anchored there by two or more sutures, which penetrate the musculo-serous coats and the tube so as not to open its caliber.

Silk sutures are next used to infold the tube along the surface of the stomach by Lembert sutures, taking up the muscular and peritoneal coats of the organ. When this done, the tube is encased in a peritoneal funnel, except at its upper part. Four or five silk sutures on either side are next employed to secure the viscus to the cut edges of the abdominal wall, and the wound is lightly packed with gauze. Peptonized milk or other nutriment may now be injected as soon as necessary, and a clamp placed upon the rubber tube.

Albert's method differs in making the skin incision lower down and in drawing out the stomach and anchoring its lower surface to the parietal peritoneum and to the posterior layer of the rectu sheath. Through the skin at the level of the costal cartilages 1 inch from the outer edge of the wound in the parietes he makes a small incision ½ an inch long, and a bridge is constructed by undermining between this and the primary incision. Under this bridge the extruded portion of the stomach is drawn upwards, and a small opening having been made into its cavity by incising its anterior wall, the edges of this mouth are secured by four or more fixation sutures to the edges of the small skin wound. The primary incision in the abdominal wall is then completely closed.

Both methods, if properly followed, prevent leakage. In Albert's method it seems to me there would be greater traction upon the stomachal walls, and consequently less movement imparted to the contained food during the digestive process, while there would be a little more difficulty in introducing it. This is an important matter in considering the several methods of operating, and attention has been called to it by Ewald[1] in a forcible manner.

During the past few weeks I have had occasion to do Witzel's operation twice at the City and County Hospital, and on both occasions with the valuable assistance of Dr. Emmet Rixford. In both these cases the conditions were unfavorable, and the operation was performed too late. While in both cases the conditions were improved, and the one chance of life given them, yet they succumbed to their diseases a few days after.

CASE 1.—A man, aged 46; on admission to hospital states he has had increasing dysphagia during the past 9 months, treated at irregular times by dilatation by sounds, with slight temporary relief. At present is unable to swallow milk or any other food. Nourished feebly by nutrient enemata; suffering with pain constantly, and also from insomnia. November 30, 1896: Witzel's operation was performed without accident, and was followed by relief from pain, and hopeful symptoms. December 2: Feeding through the gastrostomy tube was slowly commenced, and without inconvenience. December 4th: He died from the carcinoma of the esophagus, which you here see. [Pathological specimen exhibited, with gastrostomy tube firmly established in stomach wall.]

CASE 2.—A child of 4 years; female. Greatly emaciated on admission, and unable to swallow without regurgitation any kind of food or drink; nourished feebly by nutrient enemata during the past week. From the imperfect history obtained she had from birth difficulty in swallowing, and regurgitation of most of the food taken. She was always a feeble, sickly child. Esophageal sounds would not enter the stomach, being arrested near the cardiac orifice. December 11, 1896: Gastrostomy was performed by Witzel's method, and small quantities of milk and whisky were given through the gastrostomy tube at frequent intervals, commencing a few hours after the operation. This gave marked signs of comfort and relief from hunger. There was no depression nor fever after the operation. No distress followed the gradually increased feeding of milk, beef juice, and whisky. December 14: Child cheerful, and improved nutrition evident. December 16: Became comatose, pupils dilated, and in half an hour she died.

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[1] Lancet, Vol. 2, p. 731.

The *post-mortem* examination showed no peritonitis or infection. There was a stricture of the esophagus, with ulceration and corrugations thoughout the lower 6 inches, with an opening through admitting only a grooved dissector.

715 Clay street.

OVARIOTOMY UNDER DISADVANTAGES—RECOVERY.

By M. A. Craig, M.D., Lower Lake, Cal.

The following case is of interest on account of the numerous disadvantages that attended the operation, and the uninterrupted recovery in the face of these obstacles:

M. X——, age 42, single; consulted me in July, 1896, concerning a general enlargement of the abdomen. Her history was as follows: Of nervous disposition, pale and thin. Troubled with scrofula and eczema from early childhood until menstruation set in at about 16 years. Menstruation always normal and regular till six months ago when it was accompanied with more pain than usual. This was of a dragging and at times shooting character, and in the left inguinal region. At this time she first noticed the abdominal enlargement. The pain in the inguinal region began to bother her during her intermenstrual periods. Bowels constipated for past few months. Urinates from 12 to 15 times in 24 hours. Respiration hurried on slight exertion.

Examination in dorsal decubitus shows a general abdominal enlargement. Percussion dull throughout and not altered by change of position. Abdomen most prominent 2 inches below umbilicus. Circumference here 33 inches. There is a semi-solid tumor in left hypochondriac region, extending beyond median line with a vertical notch about the middle; lower edge distinctly palpable; upper margin indistinct; painless on pressure. Urine measured accurately for 72 hours; gives 13½ ounces for 24 hours; sp. gr. 1030; otherwise normal; no edema. Patient is greatly troubled with flatus. Diagnosis: Ovarian tumor. Immediate operation advised, and accepted.

As preparatory treatment, sulphate of magnesia was given freely, and as a diuretic, muriate of ammonia. This increased the quantity of the urine to 20 ounces in 24 hours. A powder of sodium bicarbonate, with bismuth subnitrate, charcoal, and salol was also given, and greatly lessened the flatus.

July 28: Patient for the first time failed to menstruate, but did not suffer from pain or disturbance of any kind.

September 16: The patient, who had been previously prepared for operation, was etherized by Dr. C. F. Burgess, of Middletown, and I proceeded to operate, with the assistance of Dr. C. W. Kellogg, of Lakeport.

An incision was made in the median line 3½ inches long directly between the recti muscles. The sac being exposed a Spencer Wells trocar was inserted, and 136 ounces of thick grayish mucilaginous fluid drawn off. The trocar was removed and the opening tied, when we found a par-ovarian multilocular cystic tumor, extensively adherent to intestines and peritoneum. Separation was effected with the fingers, except in one place, where it was necessary to use the knife, the proximal end being tied with No. 3 braided aseptic silk. The sac, which weighed 1¼ pounds, was removed, the pedicle grasped with a pair of heavy hysterectomy pedicle forceps, and ligated with two pairs of silk ligatures interlocked. The pedicle having been divided, a **V** or wedge-shaped piece was removed from its end, and the edges brought into position and sutured with heavy carbolized catgut.

At this point the patient had almost collapsed. Stimulants were used hypodermically, the abdominal cavity was quickly sponged out, and five deep fine silkworm gut and two superficial catgut sutures closed the wound. One of the deep sutures bled freely externally. Each deep suture included the entire abdominal wall with the peritoneum. A pad of iodoform gauze was applied and covered by corrosive sublimate cotton, with a flannel band pinned snugly over all to complete the dressing. Time occupied, 1 hour and 4 minutes.

Examination of the sac showed that its inner wall was studded with innumerable smaller sacs, varying from the size of a pea to that of an orange. Two of the largest, with extra thick walls, were situated close together, and were felt externally before the operation in the left hypochondriac region, as the semi-solid tumor the space between them giving the notch-like feeling. There was one spot on the inner surface of the main sac, about the size of a 50-cent piece, which was broken down and in an eroded condition.

Patient was put to bed and surrounded with hot water bottles, She rallied after 6 hours. Twenty-three hours after operation, she having passed no urine, a gum elastic catheter was introduced, and 24 ounces were withdrawn. This was the only time a catheter was used. She vomited freely 30 hours after the operation, and again 4 hours later. As there was some distension and no flatus passing, a rectal injection was given consisting of sulphate of quinine and aromatic sulphuric acid. Two hours after this injection flatus was passed freely. This injection was repeated night and morning for three days, and each time was followed by the same good effect and with great relief.

Eight hours after operation the temperature in the mouth was 100° F. On the second day it was 101°, and in three days it fell to 100°, and gradually dropped to normal on the sixth day. Four days after the operation the bowels moved for the first time, after several copious rectal injections. The dressing, which was hardly stained, was removed for the first time on the seventh day. Union by first intention had taken place. The superficial catgut stitches had been absorbed; one of the deep stitches at each end of the wound were removed, and two days later the remaining three were removed. Patient sat up in bed on the twelfth day, and got into a chair on the fourteenth. After getting out of bed the left leg as high as the knee was swollen, but not edematous. On the sixteenth day she walked about the room. Forty-eight hours after the operation the kidneys began to act freely, in fact, better than at any time for the previous six months, and this action has since been maintained. The bowels now move naturally, and there is no flatus.

Disadvantages.—The patient was of an ungovernable disposition, nervous, and stubborn; quarrelsome with relatives and nurse; she would not use the bed pan, but insisted on passing urine and evacuating the bowels on cloths in bed. She could not be kept quiet in bed, moving about from side to side, twisting and squirming in all directions, in apparent defiance of advice or danger. The only available nurse was an untrained, but very kind neighbor woman, who did very well considering the patient. The operating room was about 12x14 feet, with an 8-foot ceiling, in a box house, cloth and paper lined, rag carpet on floor, bed, sofa, dressing case and stove in room; room adjoins two bedrooms and kitchen, one door opening outside. The only source of light was through a 2½x3 foot window.

This case was evidently one in which it would not have done to follow the teaching of the older writers, to postpone ovariotomy until the pressure of the tumor interfered with respiration, or until the health had become impaired. Had the operation been put off six months longer it would probably have been a failure under the most favorable conditions.

Note.—October 23d, five weeks after operation, the patient menstruated for the first time, the period being quite natural, and with less pain than for six months previous. There is still some swelling of the left lower limb, otherwise she is better in every respect. December, 1896, swelling of lower extremity entirely gone. Is doing her own house work, and on her feet a great deal. Appetite good. Sleeps well; in fact, is as well as she ever was.

A CASE OF COMPOUND COMMINUTED DEPRESSED CRANIAL FRACTURE WITH COMPRESSION SYMPTOMS—OPERATION RECOVERY.

By A. P. Tarter, M.D., Tehama, Cal.

Read before the California Northern District Medical Society.

In presenting the details of this case to the Society, I feel that I offer nothing novel, in reference to peculiarity of injury, nor originality in the treatment instituted for its relief. A recital of the facts relating thereto will, however, if deficient in all else, serve to exemplify the responsibility that the isolated country practitioner is at times called upon to bear, while demonstrating the happy results that sometimes follow his surgical efforts, though they be inaugurated under unfavorable conditions.

Chas. O——, 31 years of age; occupation, railroad overseer of construction; of vigorous physique, with an excellent family history, and no record of previous illness; a moderate drinker, but rarely intoxicated. On the morning of February 2, 1889, he drove into town, a distance of six miles, for the purpose of having a painful tooth extracted. Prior to the operation, he deemed it expedient to fortify himself with a "few drinks." Having been relieved of his uncomfortable molar, he sought congenial companions and continued to drink until the middle of the afternoon, by which time he had become hilariously intoxicated.

In this condition he started for home—his conveyance being a spring wagon, with two horses attached. He urged his team by standing up in the wagon and lashing them with the free ends of the lines, and continued his furious driving after leaving town. About 6 P. M. he was found unconscious, about 15 feet from the road, with his hair saturated with blood, and was immediately removed to his home, one mile distant. The ground where he struck is a spot of outcropping lava, covered lightly with loose earth and presenting numerous stones, of various shapes and sizes.

His people, believing him to be profoundly intoxicated, or at most suffering from mild concussion, placed him on a lounge to recover, without additional attention. About 8 P. M. a humane and intelligent neighbor called in, and upon learning the facts and noting the patient's condition, induced his family to summon medical aid.

At 10:45 P. M. I found the patient lying on the lounge, where he had originally been placed. His hair was matted with coagulated blood; his respiration was regular, but with an occasional puffing on expiration; his pulse was full, strong, regular, and 70 per minute; his pupils equal and responsive to light. There was complete motor paralysis of the left extremities, but their sensation was little, if at all, impaired. There was no facial paralysis. He was unable to speak, uttering only a few unintelligible words.

Having thoroughly cleansed the scalp, I found a **Y**-shaped wound, admitting the end of my little finger, 3½ in. above and ¼ in. behind the right external auditory meatus. The tissues in this vicinity were markedly prominent, the tumefaction extending well forward over the right side of the frontal bone, and backward and downward into the occipital and temporal regions, being most pronounced over the center of the parietal bone. Pressure at any point within the swelling left a depression, or pit; but just below the parietal eminence, and on a line with the wound, this pitting was most pronounced.

Manipulation of the parts caused the patient to carry his right hand to his head, with efforts of resistance, and endeavor to arise. These actions were so persistent as to require restraint. He occasionally mumbled, apparently in opposition. During the examination he demonstrated, by attempting to arise and by endeavoring to loosen his clothing, that he desired to urinate; he was supported and the act was accomplished satisfactorily.

I introduced a blunt probe into the wound, which immediately came in contact with a roughened bony edge and engaged in a fissure. An exploration was imperatively demanded, and having received the sanction of the relatives, I determined to operate at once. No professional assistance could be secured within a distance of eighteen miles, and I feared that the delay would be sufficient to cause a permanent cerebral lesion by the prolonged pressure exerted by the depressed bone. The house, in the absence of a woman's supervision, was far from clean. My prospective assistants were willing, but crude and inexperienced, and the light, furnished by one inferior kerosene lamp and a few candles, was poor in the extreme.

Under chloroform anesthesia a semilunar incision was made over the site of the injury; its most dependent part corresponding to and passing through the original wound. Hemorrhage from the incision, which was quite free, was controlled by manual pressure exercised by my untrained assistants. On dissecting up the flap, a moderately firm blood-clot was found resting on the skull. This, on being removed, disclosed a vertical gutter-shaped fracture of the parietal bone, with pronounced depression.

The extent of the lesion necessitated enlargement of the original incision. The fracture measuring 2¾ inches in its vertical diameter, and 2¼ inches transversely, its anterior extremity was prolonged upward in continuation of the original curve and terminated at a point 3½ inches above the naso-frontal articulation and 2 inches to the right of the median line of the head. The posterior extremity was carried nearly vertically, in a curved line, and was terminated 8¾ inches posterior to the naso-frontal articulation, and ½ inch to the right of the median line, the whole making an opening 5½ inches in length.

While the bone was comminuted—there being five separate pieces—the fragments were so tightly wedged and interlocked as to prevent the introduction of an elevator, and it was necessary to remove a semilunar piece from the solid bone at the posterior aspect of the fracture. This was effected with a Galt trephine, which was permitted to penetrate only to the internal table, when the piece was detached and lifted out with an elevator. After this it was a simple matter to remove the fragments, and several small spiculæ were also brought away.

The dura mater exposed, was found to be covered with a very thin layer of coagulated blood, the removal of which was not attempted. No bleeding was encountered and no wound of the dura discovered. I did not note the presence of that branch of the middle meningeal artery, the groove for which is quite well marked on the inner surfaces of the anterior fragments.

All oozing from the incision having ceased, it was closed, except for 1½ inches at its posterior extremity, by 11 silk sutures. At the point corresponding to the original wound, accurate coaptation could not be secured because of the irregular and contused edges. Sublimated gauze and borated cotton constituted the dressing, following which the patient was placed in bed with his head elevated.

Soon after the anesthetic was withdrawn, he became unconscious and restless. To counteract this I administered, hypodermically, ¼-gr. sulphate of morphine with gtt ii tincture of aconite, and he soon became quiet. I left him at 2 A. M. resting easily. Six ¼-gr. morphine powders were left to be given every 2 hours, if restless, and a mixture containing gtt ii of tincture of aconite to be administered at the same interval.

I saw him again at 2 P. M. on February 3d, and learned that about 3 A. M. he had regained consciousness and moved his previously paralyzed extremities. I found him completely rational, with a full and regular pulse of 64. There was no elevation of temperature, and he denied having headache. His speech was thick and the tongue deviated to the left on protrusion. He complained of soreness and stiffness of the temporo-maxillary articulations, and of intense thirst. The left extremities had apparently regained their motility.

He had been vomiting constantly. This, however, was attributed to the anesthetic. Bismuth, ipecac, and morphine, in powders, was prescribed, and milk diet ordered. The aconite mixture was continued, and two comp. cathartic pills ordered to be given in the evening. All the morphine powders prescribed in the early morning had been administered, but I did not renew them. As the dressings were stained they were renewed.

Febuary 4th: Vomiting had subsided. The pills had operated well and with little discomfort. The pulse was full and strong and normal as to frequency. The aconite mixture was continued.

February 7th: The dressings were removed for the first time since February 3. That part of the incision that had been sutured was found united except at the site of the original wound, which was covered with dried blood and looked "doubtful." There was very little swelling and this was confined to the flap. A small quantity of inodorous bloody serum escaped from that portion of the incision left open for drainage. His pulse was full, regular, and 53 per minute. The aconite mixture was discontinued. His mind was clear. His speech still a little "thick" but improving, and his tongue deviated about the same on protrusion. It was still difficult for him to open his mouth on account of the pain and stiffness of jaws. He was allowed to leave his bed and to sit in an easy chair.

February 12th: That part of the incision left open was nearly filled with granulations. There had been no discharge at this point, except that from these granulations, since February 8th, when the margins of the original wound had sloughed away, leaving an opening about the size of a pea, through which the discharge subsequently escaped. The swelling in the flap had nearly disappeared, and this region showed a readily perceptible pulsation. His tongue still deviated slightly, and his articulation was not quite natural. He had discovered that his left thumb could not be depended on, since, in passing anything at table, it was liable to "let go." He was allowed the freedom of the house on February 10th, on which date my attendance ceased.

February 25th: The patient called on me in town. There was a slight depression of the scalp over the opening in the skull, but pulsation here had ceased. The original wound was still slightly open, and through it escaped a few drops of discharge, sufficient to lightly stain the gauze where it rested on the opening. His tongue could be protruded nearly straight, and he believed his left thumb to be free from its disposition to "let go."

March 9th: The discharge had entirely ceased. Dressings had been discontinued for four or five days. The depression of the scalp noted on February 25th, had disappeared, the contour of the parts appeared perfectly natural, and the skull opening was found to be closing.

March 19th: The skull opening had closed by a cartilaginous growth, which was smooth and regular, to about the size of a tencent piece. His tongue still deviated slightly, and he remarked that it did not feel just right, because of a seeming stiffness. His left thumb tingled occasionally, and he believed it lacking in its wonted strength. Beyond these symptoms, he was cognizant of no physical defect, the result of his injury.

About six months later I learned that he was at work and enjoying perfect health.

DEPARTMENTS.

OBSTETRICS, GYNECOLOGY AND PEDIATRICS.

By WALLACE A. BRIGGS, M.D., Sacramento, Cal., and

WM. FITCH CHENEY, B.A., M.D., Adjunct to the Chair of Obstetrics and Diseases of Women and Children, Cooper Medical College, San Francisco, Cal.

The Role of the Clitoris in the Production of Neuroses.—DR. EGBERT H. GRANDIN says: I have been forcibly impressed for years by the number of obscure neuroses in woman, the etiological factor of which was anomaly of the clitoris. I have been led to question, therefore, if the general practitioner, and pediatrists in particular, paid sufficient attention to this small and yet most sensitive organ. The fact is established that preputial adhesions of the male organ are a common cause of masturbation, of enuresis, of chorea minor. In woman I have determined a similar causal relation dependent on clitoridal adhesions, and I have over and again relieved intractable neuroses by the simple stripping of the prepuce from the clitoris. Indeed, it has become a habit with me to examine the children I bring into the world—the male for preputial adhesions of the glans penis, the female for clitoridal. I also distinctly impress on mothers and on nurses the prime importance of washing the genital organs so thoroughly as not to overlook the smegma which otherwise will form around the prepuce of both penis and clitoris. This is a point worth dwelling upon, for the careful examiner will note that both nurse and mother are reluctant—from the fear of inflicting damage—to cleanse the genitals of the female child as scrupulously as the remainder of the body. Hence neuroses may develop.—*Pediatrics*, February 15, 1897.

A Practical Method of Humanizing Cow's Milk.—The happy results which have followed the use of cow's milk which has been modified so as to conform closely to mother's milk have induced DUFOUR (*Rev. Men. des Malade de l'Enfance*), to seek out a practical method for the humanizing of cow's milk in any family. As is well known cow's milk differs from mother's milk in containing an excess of proteids and salts, while it is deficient in sugar. The amount of fat in the two is essentially equal. Dufour takes a large graduate which contains about two liters, and has at the bottom a spout closed by a cork. Into this he pours the quantity of milk suitable for an infant of the required age for one day. The vessel is tightly covered and set away in some place which is cool in summer, but moderately warm in winter. After about 4 hours the cream will have risen. Through the spout at the bottom one-third of the milk is now drawn off, a quantity of water is added equal to the milk which has been withdrawn, and 35 grammes of milk sugar and 1 gramme of salt per liter. The whole is mixed by shaking and poured into sterilized bottles. If the infant does not gain weight as fast as it ought, one to two spoonfuls of fresh cream should be added to the day's allowance of milk.—*Medical News*, February 13, 1897.

SURGERY AND ANATOMY.

By T. W. HUNTINGTON, B.A., M.D., Surgeon Southern Pacific Company's Hospital, Sacramento, Cal., and
GEO. B. SOMERS, M.D., San Francisco, Cal.

Deformity After Fracture.—In an article upon this subject, by DR. J. B. ROBERTS, the following paragraph occurs: "Deformity after unsuccessfully treated fractures, may be prevented or relieved by refracturing the callus which unites the fragments. This is occasionally necessary in instances where no treatment has been given. The bone is bent across the edge of a padded table or over the surgeon's knee, and after the band of union has been ruptured, is treated as a recent accidental fracture. This may be done with success at the expiration of even six months, since the seat of fracture remains weaker than the rest of the bone for a long time."—*Medical and Surgical Reporter*, October 31, 1896.

Fracture of the First Rib.—MR. G. JAMESON JOHNSTON reports a case of fracture of the first rib, complicated by an abcess opening into the lung. The interest of the case lies in the fact that fracture of this rib is supposed to be the rarest of all fractures. Its small size, limited range of movement, relative strength, and deep position all act as factors in limiting the number of fractures.—*Dublin Journal of Medical Science*, September, 1896.

Gastrostomy Sabanejeir, Frank Method.—The operation is begun with Fenger's incision (a three-inch incision parallel with the border of the ribs on the left side, from near the median line to the eighth costal cartilage) The muscles having been bluntly separated in the direction of their fibres the peritoneum is opened. The stomach is drawn forward and a silk sling is passed through the outer coats at a point near the fundus, so as to draw outside a cone (of stomach wall) of about one and one-half inches. The edges of the parietal peritoneum are now sutured to the serous coat of the stomach around this cone, so as to shut off the general peritoneum. Frank advises that the sutures include the muscles also. A second incision is now made about one inch above the border of the ribs, parallel to the first incision, and about one-half to threequarters of an inch in length. This incision divides the skin only. The skin between the two incisions is raised from the cartilage by blunt dissection and the sling thread passed underneath and out the smaller incision, drawing the cone of stomach out. The first incision is now closed with silkworm gut sutures. The projecting apex of the cone of the stomach is now incised for about half an inch and its mucous membrane sutured to the skin.—DR. MCMURTY in *Buffalo Medical Journal*, September, 1896.

Surgical Treatment of Hypertrophy of the Prostate.—In a discussion on this subject, DR. DAVID MACEWAN draws the following conclusions: (1) In a considerable proportion of cases, castration induces more or less atrophy of the enlarged prostate. This atrophy is probably the result of the loss of a physiological substance formed by the testicles, which is essential to the nutrition of the gland. (2) Atrophy occurs most readily in the soft and elastic form of hypertrophy, but it may also take place in the hard, even when associated with general arterio-sclerosis. (3) The best effect is obtained when there is general enlargement of the gland. Sessile enlargement of the median portion may yield to castration, but intravesical outgrowths are, as a rule, more suited for prostatectomy. (4) Cystitis, when not far advanced, may be relieved or cured. (5) High grades of cystitis, associated with septic infection of the kidneys and with distressing bladder symptoms, will be more benefited by drainage of the bladder. (6) Vesical contractility may be restored even after years of complete catheterism. (7) Although voluntary power does not return, castration may still bring relief to the patient, if catheterism has been frequent, painful, and difficult. (8) With the exception mentioned, castration will give as good results as prostatectomy, with a smaller death rate. (9) Resection of the vasa deferentia acts more slowly than castration in reducing hypertrophy of the prostate. (10) It is a simpler operation, would be more readily assented to by the patient, and could, therefore, be recommended earlier.—*British Medical Journal*, October 10, 1896.

OPHTHALMOLOGY, OTOLOGY AND LARYNGOLOGY.

By WM. ELLERY BRIGGS, M.D., Sacramento, Cal.

Eye Strain as a Cause of Epilepsy.—DR. A. L. RAMSEY, in a recent article on eye strain as a cause of epilepsy, has answered criticisms which had been made in regard to his previous reported cases, and the conclusions he had drawn from them. The author gives a history of 26 cases of epilepsy that he had attempted to cure by correcting some eye strain, with the following results: Seven cases completely cured; 3 cases partially cured; 9 cases ameliorated; 3 cases not improved; 4 cases not counted. He says that 87 per cent. of this set of published cases of reflex epilepsy has been either cured completely, or markedly benefited by the relief of eye strain. Other men have had similar results. The author thinks that the total percentage of epileptics who suffer from eye strain as an important factor is very large, after deducting from the total the comparatively small number of cases that owe their epileptic seizures directly to some organic lesion of the brain, or to a depression of the skull. Eye strain can exist without any eye symptoms, and the eye treatment of chronic epileptics is extremely difficult and long continued.—*New York Medical Journal*, January 9, 1897.

An Acute Syphilitic Affection of the Ear.—DR. E. A. CROCKETT thinks that acute syphilitic affections of the middle ear are much more common than is generally supposed. Very sudden and severe deafness, more or less severe vertigo, and violent tinitus occurring in persons previously free from ear trouble always suggest syphilis. Labyrinthine hemorrhage, or tumor, and sudden fixation of the stapes may, in rare cases, be the cause of sudden deafness similar to the condition produced by syphilis. The history and tests of the hearing will generally clear up the diagnosis. Stapes fixation from extension would show a very marked loss of low tones, often as high as 2,000 vibrations a second where the process had extended into the labyrinth sufficiently to involve the upper register. Such a loss of low tones the author has never seen in an acute syphilitic process The acute labyrinthine processes, on the other hand, show a marked loss of high tones in all cases, and in severe ones a total deafness by both air and bone conduction over a greater part of the register. The clinical evidence would indicate labyrinthine effusion as a cause of a particular group of symptoms we are considering. The early tertiary or late secondary period seem to be the favorite time for this particular lesion. In the author's experience the symptoms did not appear earlier than 3 months, nor later than 5 years from the original infection. Cranial disease is often diagnosed in these cases—the vertigo, nausea, and deafness being wrongly interpreted. A careful examination will show no other nerve but the auditory to be implicated. The author believes that injections of pilocarpine—$\frac{1}{8}$ of a grain—is an absolute specific in the acute syphilitic cases of labyrinthine trouble. If the symptoms have persisted over a month the prognosis is doubtful. The injections should always be used in conjunction with mercury and iodide to cure the cause of the ear affection.—*Boston Medical and Surgical Journal*, February 11, 1897.

Removal ot a Spiculum of Glass from the Vitreous with Preservation of Normal Vision.—DR. M. H. POST reports a case of injury of the left eye from a piece of glass which penetrated the cornea and iris and lodged partly in the lens and partly in the vitreous, of a boy 17 years old. Seven days after the injury, when the eye was first seen by the author, there was marked ciliary injection, with paroxysms of severe pain. A large sclero-corneal incision was made directly opposite the wound of the iris and a large iridectomy done. A Critchett cataract scoop, shaped somewhat like a slipper, was passed back through the zonule of Zinn into the vitreous behind the foreign body, and the piece of glass was caught in the pocket of the scoop and withdrawn at the first attempt. As much of the lens matter was removed as possible, and the eye was dressed as after cataract operation. The eye did well, and with a correcting glass had normal vision.—*Ophthalmic Review*, November, 1896.

Eucaine as a Local Anesthetic in the Surgery of the Throat, Nose, and Ear.—DRS. HORNE and YEARSLEY give favorable testimony from their experience in the use of eucaine as a local anesthetic in operations upon the throat, nose, and ear. Although their experience has not led to conclusive results, they agree with other observers that it is less toxic than cocaine, that it slows the pulse, and that it does not affect the pupils. Its anesthetic effects are more extensive and a little more lasting than cocaine. It can be sterilized by boiling without decomposition. The solutions were used in strengths of 2, 5, and 8 per cent. The 2 per cent. solution was generally found sufficient, but in deep cauterization of the inferior turbinated it was found necessary to use a 5 per cent. solution. By dropping 5 or 6 drops, warmed, into the ear, and holding the head on the opposite side for 5 minutes, its anesthetic effects are complete if it reaches the middle ear. Swabbing the throat with a piece of absorbent cotton wet in the solution produces anesthesia in from 5 to 10 minutes. The solution applied on a pledget of absorbent cotton to the anterior half of the inferior turbinate body makes it anesthetic in its whole extent. Its local effects upon the circulation are slight. It seemed to produce a slight ischemia of the turbinate bodies. In this respect its effects are slight as compared with cocaine.—*British Medical Journal*, January 16, 1897

Acute Suppuration of the Middle Ear, Followed by Caries of the Fallopian Canal and Facial Paralysis without Involvement of the Mastoid Cells. DR. F. L. JACK reports an unusual case of disease of the fallopian canal and paralysis of the facial nerve without involvement of the mastoid cells. When seen by the author the patient had been suffering for about 5 weeks with discharge from the ear. He suddenly noticed paralysis of the muscles of the right side of the face the day previous. There was slight tenderness over the region of the antrum, but no swelling or redness or swelling in the meatus. The mastoid cells were opened into and found normal. The operation was extended to the fallopian canal, which was carefully opened and pus was found. The diseased bone was curetted out, the wound healed promptly, and the facial paralysis entirely disappeared.—*Boston Medical and Surgical Journal*, December 24, 1896.

DERMATOLOGY, SYPHILIS AND VENEREAL DISEASES.

Acute Generalized Miliary Tuberculosis, Involving also the Skin.—Although acute miliary tuberculosis cannot be regarded as especially uncommon, involvement of the skin in the general process is exceedingly rare. A unique case of this character has recently been reported by LEICHTENSTERN (*Münchener medicinische Wochenschrift*). A boy, five years old, previously healthy and with a good family history, had an attack of measles, from which he failed to recover perfectly, presenting marked febrile symptoms of remittent type. The pulmonary physical signs were insignificant and consisted in slight evidences of bronchitis in both lower lobes. The skin, which was frequently examined for rose-spots, was at this time quite normal. The spleen was strikingly enlarged. The bronchial physical signs increased in intensity and extent, and to them became added evidences of effusion into the left pleura, together with dyspnea and cyanosis. The pulse had been rapid from the beginning, (120 to 140). The temperature later assumed a more intermittent character and profound sweats occurred, with loss of strength and flesh. There was only slight cough and this was unattended with expectoration. In the second week of observation, *i. e.*, six weeks after the attack of measles, a number of small, bright, red, hard, conical nodules, with sharply circumscribed bases, were observed on the face. In the further progress of the case, similar nodules appeared upon many other parts of the body. The larger number of these underwent retrograde changes and disappeared in the course of from a week to two weeks with desquamation. At the summit of other nodules vesicles formed, which speedily dried and disappeared. Upon still others appeared pustules, which also underwent involution. As old nodules disappeared, new ones appeared in remote situations. At no time, however, was any considerable number present; nor was there any evidence of a tendency to spread locally, the nodules always remaining discrete. The cervical, axillary, and inguinal lymphatic glands became enlarged. The conclusion was reached that the cutaneous lesion was either tuberculous or tuberculo-toxic, and instructions were given to excise a nodule for histologic study, but this was for some reason not done. Examination of the contents of a pustule disclosed the presence only of streptococci. In the fourth week miliary nodules appeared upon the mucous membrane of the lips, breaking down and leaving superficial ulceration. A similar series of changes was noted also upon the tongue. At the end of the sixth week the child died, amid typical symptoms of tuberculous meningitis, which was confirmed by the *post-mortem* examination. In addition, the lungs and the pleura on both sides were found to be the seat of miliary tuberculosis, the lower part of the left lung being converted into a homogeneous cheesy mass. Several bronchial lymphatic glands also were caseous. The follicles of the mucosa of the small intestine were distinctly swollen. The mesenteric and retroperitoneal glands were partly cheesy. Liver, spleen and kidneys were the seat of tubercles. Examination of two of the cutaneous nodules disclosed the histologic structure of a tubercle in the papillary layer of the skin, with the presence of tubercle bacilli.—*Medical Record*, February 13, 1897.

MATERIA MEDICA AND THERAPEUTICS.

By WM. WATT KERR, M.A., M.B., C.M., Professor of Clinical Medicine, University of California, San Francisco.

Eucalyptus Globulus in Strychnine Poisoning.—MONFRIDA MUSMECIN, studying the action of eucalyptus globulus, found that a decoction of the leaves and a solution of a salt of strychnine formed a flocculent precipitate of a clear color, while there remained above a solution of citron-yellow tint, the strychnine at the same time losing its characteristic bitter taste. On this account the author raised the question as to whether the strychnine lost its toxic action, and if in consequence eucalyptus could be used as an antidote. For this purpose he carried out a series of experiments on frogs, rabbits, and dogs, to ascertain, first, what symptoms would be produced by giving these two drugs together; secondly, what antidotal power eucalyptus would exert on being administered after the development of the symptoms of strychnine poisoning. The author found that when a decoction of eucalyptus was administered simultaneously with a dose of strychnine, which had caused death in a similar animal, the animal survived the experiment, and even became tolerant of a dose much larger than that which had caused death in animals unprotected by eucalyptus. In other experiments the eucalyptus was administered after convulsions had appeared, and then these became much less marked, and even disappeared. From these experiments the author believes that eucalyptus has a true antidotal action in strychnine poisoning, and he recommends that practical application should be made of it by using a decoction for washing out the stomach in such cases.—*British Medical Journal.*

MEDICINE AND PATHOLOGY.

By ALBERT ABRAMS, M.D., Professor of Pathology, Cooper Medical College, San Francisco.

Etiology of Lobular Pneumonia.—KREIBICH (monograph published by Branmüller, Vienna, 1896), examined 27 cases of lobular pneumonia, 20 of which were of the inspiration variety. In 23 he found the diplococcus pneumoniæ, 11 times in pure culture, 5 times with B. coli communis, 4 times with staphylococcus pyogenes aureus, once with each B. pneumoniæ streptococcus pyogenes, and another unrecognized microörganism. He asserts that broncho-pneumonia, and especially inspiration pneumonia, are generally caused by the diplococcus pneumoniæ, but he notes that in man B. coli is also capable of causing lobar and lobular pneumonia. As an auto-infection from the cavity of the mouth, the occurrence of lobular pneumonia dependent upon the diplococcus pneumoniæ is favored by such conditions as heart failure, hypostatic hyperemia, etc. In most cases of coli pneumonia there is infection by the blood from the intestine or from inflammatory processes in the urogenital tract. Inspiration pneumonia may end in suppuration, in gangrene, or in induration. With regard to the first termination, the variety of exudation is not generally influenced by the question whether the diplococcus was alone present or in company with other organisms, though the exudation has a tendency to be bloody if large infective masses are suddenly inspired. Gangrene is generally caused by anaërobes and saprophytes probably present in the inspired mass, which induce putrid changes in the contents of the bronchi, and by their katabolic products lead to necrosis of the inflamed portions of the lung. Induration apparently occurs when the metabolic products of the bacteria constitute a long continued stimulus to productive inflammation.—*British Medical Journal*, September 12, 1896.

The Etiology of Serous Pleurisy.—Based on an examination of 200 cases of pleuritis, A. ASCHOFF formulates the following conclusions: (1) The serous exudates are usually free from all pyogenic microörganisms. (2) If pyogenic microbes are present, suppuration will eventuate. An exception to this rule occurs when only pneumococci are present. The reason of this exception can be attributed to the early death of the pneumococci. (3) Cases of suppurative pleural exudates sometimes get well without operation. (4) The occurrence of isolated forms of rheumatic pleuritis is questionable; it is, at any rate, infrequent. (5) Pleural exudates occurring in the course of arthritis acuta are usually associated with an affection of the heart. (6) The treatment with salicylates in pleural effusions is without any particular benefit. (7) The so-called idiopathic exudates are, as a rule, dependent on tuberculosis. They are, however, subject to cure.—*Zeitschr. f. klin. Med.*, Bd. xxix, Hft. 5 and 6, 1896.

Blenorrhagic Pleurisy.—P. FLAITOUT (*Gaz. Med. de Paris*), in a study of the literature on this subject, is of the opinion that pleuritis of gonorrheal origin does exist. The question, however, is still undecided, whether the gonococci act alone in the production of the pleuritis, or whether they act in conjunction with other microbes in the secondary infection. The pleura is histologically well adapted to favor the ingress of the gonococci. The latter reach the pleura, in all probability, in the same way as do other pathogenic organisms, viz: through the circulation of the blood. He quotes the case of Wertheim, which is supported by the observations of other authorities. Wertheim, in a case of vulvo-vaginitis with purulent arthritis, found innumerable gonococci in a thrombotic vein under the mucous membrane of the urinary bladder.—*Centralblatt f. Innere Medicin*, September 19, 1896.

Malignant Endocarditis in Conjunction with Gonorrhea.—DAUBER and BORST (*Deutsch Archiv. f. klin. Med.*, lvi, Nos. 3-4), present observations which are of especial interest, since they demonstrate that not every case of endocarditis occurring in the course of a gonorrhea is dependent upon invasion of gonococci. As is well known, a number of cases of endocarditis have recently been published, the origin of which was concluded wholly from the microscopical examination. The authors report a case of intense destruction of the aortic valves, in closest connection with a gonorrheal affection, in which the cause of the extensive alterations was found to be diplococci located in the exudate upon the valves. These microörganisms were partly typical biscuit-formed, lying partly within the cells,—diplococci which decolorized by Gram's method and manifested great susceptibility to treatment with alcohol, but which, however, when grown upon nutrient media, though they resembled gonococci, proved to be different microörganisms. Unfortunately, no cultural tests for gonococcus in the urethra were made during the clinical observation; hence, it is undecided whether, in addition to the gonococcus, the microörganisms found in the heart's blood were present in the urethra at the beginning of the affection, or whether the microörganisms in the urethra would have proved to be gonococci on culture examination.—*American Medico-Surgical Bulletin*, November 14, 1896.

The Treatment of Diabetes.—MOUSSÉ has arrived at the conclusion that antipyrin should not be employed in diabetes. He has used it with the object of diminishing the excretion of sugar, uric acid, and urea, and found that the diminution was very evanescent. Beer yeast proved of no service in his hands. The same observation could be made to the use of pancreas in the fresh state. The real treatment of any service in diabetes is diet. If drugs are used, their effects should be carefully watched, as they are often harmful. Moussé noted that each time he had given pancreas, it had appeared as if loss in weight were retarded.—*Semaine Medicale.*

Nature and Treatment of Tetany.—ODDO, on discussing the symptoms of tetany, shows that the theory of its etiology has an important bearing on the treatment to be adopted. He does not agree with Kassowitz, that in childhood it is merely a manifestation of rickets, though admitting that rickets favors the appearance of tetany. He accepts the view that the essential cause of the nervous symptoms is a form of toxemia due to the absorption of poisonous bodies produced in the gastro-intestinal canal, owing to imperfect digestion. The form of imperfect digestion which is most liable to lead to tetany, is that attended by dilatation of the stomach, with long retention of the food. He shows that tetany of the adult, which he thinks to be essentially the same disease, is connected with a special form of gastric indigestion, attended by hypersecretion of gastric juice containing an excessive quantity of hydrochloric acid (Reichmann's disease). He offers two replies to the objection made by Kassowitz to this theory, that while dyspepsia is very common in children, tetany is relatively rare: (1) That for the production of tetany it is probably necessary that there should be a special form of perverted digestion, associated possibly with some special form of microbe, or with some peculiar condition of gastric secretion. (2) The view that for the production of tetany there is necessary a special vulnerability of the nervous system. Not that the theory, which has been maintained, that tetany is essentially a disease of the nervous system, or merely a manifestation of nervous instability, however produced (for example, by heredity or malnutrition), should be accepted, but that the special form of toxemia upon which the nervous phenomena are produced, only causes its characteristic effects when there is a predisposition in the nervous system. He calls attention to the fact that Weiss in the adult, and Bonome and Cervesato in children, have described certain lesions of a degenerative nature in the gray substance of the spinal cord, most pronounced in the anterior horns, in cases of tetany. Beginning with hyperemia and cloudy swelling, they go on to degeneration of the cells, with overgrowth of the neuroglia. These lesions have not been observed in all cases which have been examined, but they agree very well with the nature of the symptoms observed during life, and are such as might be produced by a toxin circulating in the blood. With regard to the diagnosis he does not accept the opinion which has been strongly maintained by some German writers that laryngeal spasm is pathognomic of tetany. A child may suffer from tetany and not from laryngeal spasm, while that condition may occur in children who never show any symptoms of tetany in the limbs. It is, however, very frequent in children suffering from tetany under the age of two years, and since it may cause sudden death it adds to the importance of an early diagnosis of tetany, for much may be done by treatment to remove the cause underlying the nervous instability. Among the less common manifestations of tetany, now recognized, are retraction of the head and squint, which may lead to the diagnosis of meningitis. In the latter disease the tetanic spasms of the hands and feet, so characteristic of tetany, are seldom present, and when they do occur are less prominent symptoms; vomiting is more persistent, and constipation is the rule; whereas, in tetany, there is nearly always diarrhea. In tetany the pupils are not unequal, and the pulse is frequent. In the treatment of tetany, the two indications are to favor the expulsion of the toxic substances, and to prevent their formation. Both indications are met by calomel, which Oddo recommends to be given every other day in doses of $\frac{3}{4}$ gr. or more, according to the age of the child. Washing out the stomach is a useful measure, which, however, must be adopted with discrimination, owing to the risk of exciting laryngeal spasm. The mode in which the child is being fed must be carefully investigated, and any errors corrected. If there be a deficiency of the acids in the gastric contents, hydrochloric acid should be given after each feeding; if there be an excess of acid, a small dose of sodium carbonate or lime water. To check decomposition in the intestines, he recommends, in addition to or in place of calomel, benzo napthol, which may be combined with bismuth subnitrate. To wash out the large intestine with water, boiled or medicated with boric acid, may also be recommended, both as an evacuant and as an antiseptic. Vermifuges should be administered if there be reason to suspect the presence of worms, for these may contribute to render the tetany more severe and inveterate. The child should be guarded from cold and excitement, which are known to be capable of determining attacks of tetanic spasms. For the immediate relief of the spasms, warm baths are the most effective agents. Of drugs, chloral may be given by enema to relieve an attack. As a sedative, to be used continuously during the tetanic state, and not only during the exacerbations, Oddo prefers bromide of strontium. In a very severe attack, after giving a prolonged hot bath, with cool effusions to the head, it may be necessary to resort to the inhalation of chloroform. If laryngeal spasm becomes suddenly serious, a sponge soaked in very hot water should be applied at once to the neck, followed, if necessary, by inhalation of chloroform, which, however, must be used in small quantities, carefully watching the effect, as it may have a tendency at first to aggravate the spasm.—*Révue de Medicine.*

The X Rays, and their Application to Practice and Diagnosis.—SYDNEY ROWLAND, in an interesting and instructive article on this subject deduces the practical results of the discovery of Roentgen up to date. The process is only of use under those conditions in which we have a substance or portion of the body which is opaque to the X rays surrounded by tissues which are transparent, and *vice versa*. This definition of practical utility at once limits the applications very considerably, and when it is remembered that the vast majority of tissues and organs of the body are extremely transparent, and that only the bones and certain foreign bodies are opaque, a very fair idea is obtained of the extent of the services rendered by the new process. Reference is made in this excerpt to the medical utility of the Roentgen discovery, although in Rowland's contribution the application is chiefly surgical. The application of the discovery to the diagnosis of thoracic disease is limited. It is quite true, that by using a sufficiently large plate, a skiagraph of the heart can be obtained. That this is possible is due to the fact that, anatomically, the heart consists of a dense mass of tissue practically surrounded by an air space. But it must be remembered that a skiagraph thus obtained consists of nothing else but a shadow of the outline of the heart. No indication is afforded as to the condition of its valves or cavities beyond that which can be indirectly inferred from its shape and size. Consequently, the knowledge that we are able to gain from the application of the method to this region of the body is no more than can be obtained in a much simpler manner by the ordinary method of percussion. For the diagnosis of foreign bodies in the trachea and bronchi, or those imbedded in the substance of the lung, the skiagraph will reveal all that can be desired, provided such bodies are opaque to the X rays. It is especially useful in the all too common cases of children who have swallowed marbles, small coins, etc. In the region of the abdomen, the practical utility of the process is confined to the detection of foreign bodies and the diagnosis of lumbar caries, fracture, or dislocation. [My observations with the Roentgen rays in thoracic diagnosis justify me in saying that their application is more definite and extensive than one is led to believe by the foregoing contribution. A shadow of the heart may be photographed, but this method does not lend itself to clinical purposes on account of the time consumed in such a process. By means of a fluorescent screen the outline of the heart and its movements in part can be seen in most persons. No argument need be advanced in commenting on the indefiniteness of cardiac percussion. With the Roentgen rays and a good fluoroscope I consume no more time in tracing on the chest wall the outlines of the heart than I would in delimiting that organ by the conventional method of percussion, with this difference, however, that by the former method the results are always positive. In the ordinary method of percussion, it is impossible, as a rule, to separate the dulness of the heart from that of the liver; by direct inspection of the thorax, by means of the fluorescent screen, one is enabled to do so without difficulty; one can also note clearly the ascent and descent of the diaphragm, and can definitely trace the upper border of the liver. A case may be briefly cited as illustrative of the value of the X rays in cardiac diagnosis. An individual presented himself with an extensive area of cardiac dulness, which, in association with other physical signs, cogently suggested pericardial effusion; in fact, this was the diagnosis made by several physicians. With the aid of the fluoroscope all doubt was at once dissipated, and the diagnosis of dilatation of both ventricles of the heart was made, as it was definitely shown by vision that the retraction of the apex beat of the heart corresponded exactly with the left border of that organ. If an effusion were present, the apical retraction would be noted within the area of the cardiac shadow.—A. A.]

MENTAL DISEASES AND MEDICAL JURISPRUDENCE.

By A. W. HOISHOLT, M.D., Assistant Physician, State Asylum for Insane,
Stockton, Cal.

Stupor of One Month's Duration Following an Epileptic Fit.—DR. C. BASTIAN reports a case in a girl. 13 years of age, who for 1½ years had suffered from epileptic attacks. After an attack, which in course and severity did not differ from any previous or subsequent ones, the patient remained in a restless semi-comatose or stuporous condition. Paralyses, pathological changes in the retina, all symptoms of organic lesion were absent, while severe headaches, hyperesthesia, retraction of the abdomen were present; at times there was a deviation of the head and eyes toward the right, together with a marked dilatation of the pupils.—*Lancet.*

The Equivalent of Migraine.—DR. A. BARRY has attempted to find equivalents of the attacks of migraine in conformity with the views of Prof. Möbius, who regards migraine as a special form of hereditary degeneration, closely related to epilepsy. Dr. Barry reports the history of a case of typical migraine, in which the headaches ceased during a period of three months, and in their place severe gastric pains appeared. At the end of this time the stomach trouble vanished, and the migraine reappeared. The author was able to exclude organic disease of the stomach, and also hysteria and neurasthenia, and he, therefore, regards the gastric pain as a migraine equivalent.—*Centralblatt f. innere Medicin—Journal of Nervous and Mental Disease.*

Morphinomania in an Infant Four Months Old.—A case of this kind has recently been reported in a French medical journal. The baby had been brought up on the bottle, and as it was irritable and sleepless at night, the nurse had nothing better to do than to add to the milk a decoction of poppies. At first one poppy head was sufficient to produce sleep for 6 to 8 hours; later on three were required, which were generally given in the evening. For some time after the commencement of this treatment the child seemed well and ate fairly, but afterwards its development seemed to stop and remained stationary for two months; it became pale, delicate, and thin. As soon as the decoction was stopped the child got irritable, crying constantly, and refused to take any nourishment. After a week of abstinence it became very weak, and the pulse and respiration became frequent. Then a decoction was administered again and the infant recuperated at once, and after sleeping for several hours woke up apparently in good health. When the drug was suppressed again the stools became greenish and mucous, and the child died ten days later.—*France Medicale—Journal Nervous and Mental Disease.*

The Exceptional Effects of Bromism.—PROF. S. WEIR MITCHELL, in a recent lecture, calls attention to the fact that while the ordinary symptoms of bromism are familiar to every one, bromism in an aggravated form is seldom met with and not often recognized, the symptoms being often ascribed to other causes. It is true, however, that in extreme cases the symptoms observed are not alone due to the bromides: the prodromer of an epileptic attack may, for instance, under the influence of the bromides, be intensified even in those whose attacks have been lessened in number; in female epileptics taking bromides it has at times been observed that the irritability or despondency is more marked during the menstrual period than at other times. Where bromides have been administered in cases of brain-trauma, an irritable temper, suicidal tendencies, and temporary delusions have frequently been seen. In cases of heart disease, the bromides may cause circulatory disturbances, although, as a rule, they do not do so. One of the early symptoms of bromism is a tendency to ptosis. The despondency, observed at times in cases in which only 60 grains have been administered daily, is, as a rule, not lasting; but now and then we find people who do not bear any effective dose of bromide, and who are in a state of mental depression so long as the drug is being administered, and sometimes the despondency may even be associated with suicidal impulses. Irritability is, however, more frequently observed. It is true that in chronic cases of epilepsy irritability is a symptom of the disease, but it is well to remember that it may be caused or aggravated by bromides. The drug may cause sudden destructive outbreaks with unrestrained violence of temper, amounting to severe maniacal excitements.—*University Medical Magazine*, June, 1896.

Epilepsia Diabetica (Acetonica).—DR. JACOBY, of New York, reports 3 cases of real diabetic epilepsy. Cases of epilepsy due to and giving a previous history of diabetes are rarely met with in medical literature. The first case occurred in a girl 22 years old, whose father had died from diabetes, but whose history did not otherwise show any hereditary predisposition When first taken sick she presented symptoms of a bilateral neuritis, pains in the legs, arms, and breasts, vomiting, profuse diarrhea, no albumin in the urine, but 0.257 per cent. of sugar; afterwards tonic and clonic spasms, with loss of consciousness, set in. When the patient was examined by Dr. Jacoby, he found 2 per cent. of sugar in the urine, with aceton in large quantity. The attacks ceased for a time, but afterwards recurred and continued until she died. The second case was observed in a boy 17 years old, who, from unknown causes, suddenly lost consciousness, fell to the floor, and was seized with convulsions. In the course of the development of a typical case of diabetes the patient had in all ten or twelve attacks. These symptoms were associated with tropho-neuroses, great loss of blood, sensory disturbance, and xanthoma diabeticorum. In the urine there was 3 per cent. of urine and some aceton. Afterwards he had only attacks of *petit mal*, no convulsions. He died without being again examined by Dr. Jacoby. The third case was a diabetic patient, who passed urine containing 1 per cent. of sugar, and who had had in all about twenty epileptic attacks. The writer is of the opinion that the term, "acetonic epilepsy" should be applied to these cases, the name being indicative of the pathogenesis of the attacks. Dr. Jacoby refers to the publications of Prof. v. Jaksch on epileptiform attacks in acetonuria. It is well known that the presence of aceton in large quantity in the blood and urine is not confined to cases of diabetes; such patients presenting besides gastro-intestinal, respiratory and nervous disturbances; the latter consisting of excitability, sopor, coma, and at times convulsions. It has also been proved by v. Jaksch, by experiments on animals, that aceton can produce clonic muscular spasms. It would, however, be possible that in these cases the acetonuria was not the cause, but the effect of the spasms. This possibility is rendered doubtful by the investigation of Prof. v. Jaksch, who did not even find traces of aceton in a single case among a great number of epileptics, although he adds that in his analyses he did not make use of distillation tests, and he refers to Baginsky, who found enormous quantities of ceton in the urine of children subject to eclampsia. The reason that epileptic spasms in cases of acetonemia, so frequently met with in diabetics, are so rarely clinically observed, is, according to the writer, that the majority of such cases of acetonemia are cases of acute poisoning, and terminate fatally in a very short time.—*Centralblatt f. innere Medicin.*

The Doctrine of the Neurons and the Discharge Theory.—PROF. BECHTEREW has lately brought forward a new theory on the subject of the transmission of the nerve impulse along the neurous or nerve elements. Golgi first explained the transmission of the nerve impulse by assuming the existence of anastomoses between the ramifications of various neurons. In opposition to Golgi's anastomosis theory, Forel, His, Ramon y Cajal, and others put forward the contact theory, explaining this transmission by contiguity of the end ramifications of one element with those of another. Bechterew maintains that "the end ramifications of one nerve element do not come in direct contact with those of another, but come only near each other at varying distance. The transmission of the nerve impulse from one nerve element to another, takes place by a difference in the tension of the energy between the two elements, which causes a discharge from one neuron to the other, as in the case of that taking place in a series of Leyden jars, which are discharged, one after the other and one into the other. The greater or less proximity of the nerve endings of one neuron to the processes or the body of the other, will evidently cause a greater or lesser resistance to the transmission of the nerve stimulation from the one neuron to the other. The resistance to the conduction will further depend upon the number of the nerve elements required to compose the corresponding conducting paths." Prof. Bechterew comes to the conclusion that the qualitative difference of our sensations (tactile, temperature, pain sensations, and those of taste, smell, hearing, and seeing), is not to be explained by the unessential varieties in the structure of our centers, but that it is in sympathy with and a response to the difference in the character of the peripheral organs (skin, retina, labyrinth, etc.), and the peculiarity of the nerve impulses originating there.—*Neurol. Centralblatt—Journal Nervous and Mental Disease*, November, 1896.

FORMULÆ.

By H. E. SANDERSON, Ph.B., M.D., Assistant Physician State Asylum for Insane, Stockton, Cal.

Local Anesthetic.—The following combination is said to be almost magical in its action:

Chloroform	12 parts
Tinct. of aconite	12 parts
Tinct. of capsicum	4 parts
Tinct. of pyrethrum	2 parts
Oil of cloves	2 parts
Gum camphor	2 parts

Dissolve the camphor in the chloroform, and add the oil of cloves, and lastly the tinctures.—*Medical World.* —*Medical Age.*

Frodium Cicutarium, for Uterine Hemorrhages.—An infusion of this plant, made from one part of the plant with 12 parts of water, is said to be more powerful than ergot. A dessertspoonful is given every two hours.—*Journal des Practiciens.—New York Medical Journal.*

Vulvar Vegetations:

Pulv. savin	gm. 1
Alum. dessicat	āā 25.0
Hydrarg. chlorid. corros	1.0

A more active application is the following:

Pulv. savin	Equal parts.
Iodoform	
Acid salicylic	

—*New York Medical Journal.*

Bites of Fleas, Mosquitos and Bedbugs:

Olei olivæ	gm. 20
Ungt. styracis	25
Balsam. Peruvian	5

—*Med. Record.*

Lupus Erythematosus:

Liquor potassii arsenitis,	1 part
Aquæ	6 parts

Sig.—Apply twice daily.
—*Gaz. Hebd.—Medical Record.*

A Corrigent in Chloroform and Ether Inhalations.—Dr. E. Fraenkel recommends the following formula:

Morphine hydrochloride	2.0 gr.
Atropine sulphate	0.2 gr.
Chloral hydrate	3.5 gr.
Distilled water	210.0 min.

Sig.—Inject subcutaneously, from 1 to 1¼ grammes shortly before anesthetization.—*Tag. des Operat. Gynäkol.* —*Centralblatt f. Chirurgie.*

Eucalyptus in Strychnine Poisoning.—A decoction of Eucalyptus is of great value and may be used for lavage of the stomach, in cases of strychnine poisoning.—*Exchange.*

Collodion for Hemorrhoids.—Dr. Samways recommends, in the *British Medical Journal*, the use of styptic collodion, applied on cotton-wool to the hemorrhoids each morning, after defecation.

PUBLIC HEALTH.

By W. R. Cluness, M.A., M.D., San Francisco, Cal.

Mortality for January, 1897.—The deaths registered in 53 town districts of the State, during the month of January, in a population of 740,611, correspond to an annual rate of 18.36 a thousand, the total mortality having been 1137. 80 deaths were due to zymotic diseases, giving an annual rate of 1.29 a thousand. Of these, 17 were due to diphtheria, 3 to cholera infantum, 26 to typhoid fever, 2 to diarrhea and dysentery, 11 to cerebro-spinal fever, 3 to whooping cough, 3 to croup, 3 to intermittent and remittent fevers, 2 to scarlet fever, 8 to measles, and 0 to small-pox. 375 deaths resulted from diseases of the respiratory organs, giving an annual rate of 6.07 a thousand. Of these, 191 were due to consumption, 128 to pneumonia, 42 to bronchitis, and 14 to pulmonary congestion; the rate being, for consumption and pneumonia, 3.08 and 2.06, respectively. 122 deaths resulted from diseases of the heart, 4 from alcoholism, 4 from erysipelas, 46 from cancer, and 460 from causes not given. The average annual death rate from all causes occurring in the ten largest cities and towns in the State, and representing a population of 622,000, was 18.48. The highest rate for the month occurring in cities having a population of 10,000 or more inhabitants, was reported from San Francisco, the lowest from Stockton.

METEOROLOGY.

Summary for January, 1897—*Temperature.*—The normal temperature of the State for January is 45.6°; the average for January, 1897, was 45.5°, a departure from the normal of −0.1°. The highest monthly mean was 63.0°, at Coronado; the lowest, 20.0°, at Bodie. The maximum temperature was 82°, at Coronado, on the 22nd. The minimum, 14° below zero, at Bodie, on the 18th. The absolute range for the State was 96°. The greatest monthly range was 58°, at Truckee; the least, 17°, at Point Lobos.

Rainfall.—The normal precipitation for the State for January is 4.52 inches; the average for January, 1897, was 2.69 inches, a departure from the normal of −1.83 inches. The greatest monthly precipitation was 9.34 inches, at Morse's House; the least, 0.10 inches, at Keeler.

Wind.—The prevailing direction of wind was S.W. to N.W.

Unusual Features.—The unusual meteorological phenomenon was the greater precipitation during the month in southern California and the least in central and northern California. January rainfalls are generally the reverse of above. —James A. Barwick, Director California Weather Service.

California—Tabular Statement for January, 1897.

STATIONS.	TEMPERATURE. Mean	TEMPERATURE. Highest	TEMPERATURE. Lowest	TEMPERATURE. Mean Highest	TEMPERATURE. Mean Lowest	TEMPERATURE. Mean Daily Range	RAINFALL. No of Days Rain Fell	RAINFALL. Total Rainfall	Mean Relative Humidity	WEATHER. No. of Clear Days	WEATHER. No. of Fair Days	WEATHER. No. of Cloudy Days	WIND. Prevailing Direction.	FURNISHED BY—
Auburn..........Cal.	50.0	76	33	------	------	------	----	2.78	------	---	---	---	N.E.	Southern Pacific Company.
Berkeley......... "	46.0	57	38	52	42	10.0	8	3.71	86	10	10	11	S.	Obs. University of California.
Colfax............ "	43.0	70	33	------	------	------	----	4.15	------	---	---	---	N.E.	Southern Pacific Company.
Coronado........ "	62.0	82	47	72	53	19.0	9	3.13	71	17	7	7	S.W.	Hotel del Coronado.
Eureka........... "	48.0	62	34	54	42	12.0	13	3.04	86	4	13	14	N.W.	Weather Bureau Dept. Agr.
Fresno........... "	44.0	61	30	49	38	11.0	9	1.93	88	4	5	22	N.W.	" " "
Keeler........... "	45.0	65	34	------	------	------	----	0.10	------	---	---	---	N.	" " "
Los Angeles.... "	56.0	79	37	65	46	19.0	9	3.70	68	13	5	9	N.E.	" " "
Monterey....... "	54.0	66	36	------	------	------	----	1.10	------	---	---	---	S.	Southern Pacific Company.
Napa........... "	46.0	61	31	55	38	17.0	5	2.29	89	4	13	14	S.W.	Station Napa Insane Asylum.
Oakland......... "	46.0	58	34	52	39	13.0	9	3.32	86	7	11	13	N.W.	Chabot Observatory.
Paso Robles.... "	47.0	64	28	------	------	------	----	3.65	------	13	7	11	S.W.	Agr. Experimental Station.
Red Bluff....... "	46.0	65	33	53	39	14.0	11	3.22	83	8	9	14	N.W.	Weather Bureau Dept. Agr.
Sacramento. ... "	44.0	59	33	50	39	11.0	10	3.66	81*	5	8	18	S.E.	" " "
San Bernardino "	51.0	75	30	62	40	22.0	10	3.40	------	14	8	9	N.	A. K. Johnson, M. D
San Diego....... "	56.0	73	40	63	48	15.0	9	3.13	71	17	7	7	S.W.	Weather Bureau Dept. Agr.
San Francisco.. "	49.0	60	40	53	44	9.0	8	2.26	84	7	12	12	N.	" " "
Santa Barbara.. "	55.0	78	40	64	46	18.0	6	4.35	67	18	6	7	W.	Hugh D. Vail.
Santa Cruz...... "	50.0	71	30	------	------	------	----	3.72	------	17	4	10	W.	W. R. Springer.
Yuma...........A. T.	55.0	73	39	65	46	19.0	8	2.83	57	14	12	5	N.	Weather Bureau Dept. Agr.

Blank (----) indicates data missing.

* means humidity at 5 P. M.

Occidental Medical Times.

COMMUNICATIONS are invited from all parts of the world. When necessary to elucidate the text, illustrations will be furnished without cost to the author.

SACRAMENTO: MARCH, 1897

THE SAN FRANCISCO BOARD OF HEALTH AND FOOD ADULTERATION.

The crusade that the San Francisco Board of Health has inaugurated against food adulteration, and impure food in general, is bearing good fruit. Commencing with an examination of the milk supply and of the various dairies and dairy herds, the Board has gradually extended its scope. At first, only the subject of impurity in such foods as meats and vegetables, was taken up, but the scope of the Board's investigations has now been extended to embrace all food stuffs. This, necessarily, will lead to a most comprehensive inquiry and supervision, and bids fair to yield most valuable results.

It is a matter of common notoriety that adulteration of the most glaring description exists in many articles commonly know as groceries; tea, coffee, sugar, and all the spices, being very generally adulterated with inferior grades of the same articles or with inert substances. Frequently this adulteration does not amount to more than a fraud on the purchaser, but there are other articles in which the substitution is positively deleterious In this connection, canned goods may particularly be mentioned. Modern progress in the preservation of foods has led to an enormous extension of the canning industry, so that not only preserves, jams, and jellies, but almost every variety of fruit and vegetables, with the various meats, can be obtained in this way. Meat extracts and soups are always obtainable in endless variety. It is here that the widest range of adulteration prevails, and that this adulteration is of a character most harmful to the consumer. Many of the so-called fruit jellies are absolutely devoid of even a trace of fruit, while honey can be manufactured in large quantities without the aid of bees.

An investigation, such as the San Francisco Board of Health has inaugurated, is only possible in a large city where funds and competent assistance are available. It is, however, gratifying to know that the results obtained even there, are far reaching and directly of benefit to other communities. This is well shown by the first prosecution undertaken by the Board. A grocer was arrested, tried, convicted, and promptly fined in the sum of $50, for selling adulterated raspberry jelly. There was no defence as to the character of the article sold. The grocer, however, protests that he was ignorant of the true nature of the goods he was retailing, and he has, therefore, had recourse to his wholesaler, who, in turn, proceeds against the jobber, who, also, has fallen back upon the manufacturer. The consequence of this method of placing the ultimate responsibility is very evident. It is not so much the fine, or even the imprisonment of the offender, that is the principal deterrant, as the absolute destruction of the sale of the product, whatever it may be. Let the fact be widely known that the goods of a certain manufacturer are fraudulent, and they will speedily become unsalable. As a result, there must be a speedy improvement in the character of the article, or its marketable value ceases.

In connection with the meat supply, the conviction of a butcher has also been procured and a sentence of six months' imprisonment imposed. In this case meat had been exposed for sale, from cows previously condemned and ordered destroyed by the health authorities. We congratulate the Board upon the excellent work it has undertaken and upon the good fruit already shown.

NOTES.

National Confederation of State Medical Examining and Licensing Boards.

The seventh annual meeting of this Confederation will be held in the small banquet hall of the Hotel Walton, at Philadelphia, Monday, May 31, 1897, at 10 o'clock A. M. The object of the Confederation is to consider questions pertaining to State control in medicine and to compare methods in vogue in the several States; the collection and dissemination of information relating to medical education, and to consider propositions that have for their purpose advancement of the standards in the United States. A cordial invitation is extended to all members and ex-members of State Medical Examining Boards, and to physicians, sanitarians, and educators, who are friendly to the objects named; to attend the meeting and participate in its proceedings. Dr. William Warren Potter, of Buffalo, N. Y., is President, and Dr. A. Walter Suiter, of Herkimer, N. Y., Secretary.

Twelfth International Medical Congress.

The twelfth International Medical Congress will be held in Moscow, Russia, August 19 to 26, 1897. Dr. A. Jacobi, 110 West Thirty-fourth street, New York, the Chairman of the American National Committee, has issued the following circular of information: The transatlantic steamship companies have refused any reduction of the usual charges. Reductions of fares on Russian railroads are expected shortly. The French, Spanish, Swedish, and Hungarian railroads promise a reduction of 50 per cent.; so do the Italian for a distance of 500 kilometers; less (down to 30 per cent.) for shorter distances. The Mediterranean lines (Messageries Maritimes, General Italian Navigation Company, Austrian Lloyd) grant from 25 to 50 per cent. The chairman is not authorized to issue certificates of any kind in favor of congressists. He will try to ascertain, however, in which way their movements may be facilitated, and may receive a reply in the second half of April. Extracts of papers to be read before any of the Sections ought to reach the Secretary General, Dr. W. K. Roth, before June 1st, in order to be printed in the preliminary volume. A special prospectus containing the final details referring to traveling, lodging, festivities, etc., is promised for the near future.

SOCIETY PROCEEDINGS.

SACRAMENTO SOCIETY FOR MEDICAL IMPROVEMENT.

Regular Meeting, January 26, 1897.

The President, F. B. SUTLIFF, M.D., in the Chair.

Bulbar Paralysis.—DR. H. D'ARCY POWER exhibited a case of bulbar paralysis, which he briefly reported. He said: I saw this case about three weeks after the patient received his injuries, and was asked to examine it in reference to certain nervous symptoms that were then developing, namely, slight slurring in the speech, some difficulty in swallowing, and decided weakness of the hand grasp, with tremor. I gave an opinion that degeneration changes were occurring in the motor centers of the medulla. The subsequent history of the case has fully confirmed this view. The patient now speaks very indistinctly. He has the greatest difficulty in swallowing food. He has developed the emotional condition common in bulbar paralysis. The degeneration has proceeded downwards, as it often does in such cases, and he has strongly marked progressive muscular atrophy of the Erb or upper arm type. In addition, there is a distinct paralysis of the muscles of the right side of the face. The case is interesting, as showing the rapid development of degeneration changes after trauma.

Dr. T. W. Huntington said the patient had fallen from a bridge sustaining a severe scalp wound. He was taken to the Railroad Hospital, where he remained unconscious for two days. He finally developed spasmodic contractions of the muscles of the neck.

Dr. Power: When I first saw the patient the symptoms strongly resembled those of bulbar paralysis. There was a paralysis of the right side of the face. The patient also had progressive muscular atrophy. The condition of locomotion is still fair. There is some twitching of the muscles all over the body.

Dr. T. A. Snider read a paper upon "Herpes Zoster."

Dr. W. A. Briggs: The question is one of intense interest to our patients occasionally, as I have had very recent opportunity to observe. The severest case I have ever seen occurred in my practice about six weeks ago. The patient, a man of 50, had a congestive chill, and for an hour he seemed moribund. Under nitro-glycerine and immense doses of quinine, however, he recovered, but in about ten or twelve days was taken with a severe pain in the right arm, extending to the chest. The pain was extremely severe, requiring large doses of morphine and acetanilid for relief. I administered $\frac{1}{4}$ of a grain of morphine every hour, and 5 grains of acetanilid every hour for four doses, and he did not have a comfortable night. I increased the morphine to $\frac{1}{2}$ grain every hour, with only partial relief. This was before the eruption, about a week after the first onset of pain. The pain still continued after the eruption. Large doses of morphine were necessary to make the pain at all endurable, and it was finally relieved only by arsenic and quinine in large doses ($\frac{1}{20}$ grain of the former and 6 grains of the latter four times a day). The disease was probably of malarial origin, as is indicated by the previous malarial attack, and by result of specific treatment.

Dr. H. D'Arcy Power: I have seen cases where, in my judgment, the condition of the patient had nothing to do with the disease. There is something in the fact which has been pointed out that herpes zoster occurs simultaneously over a given area, although I have not seen two cases in the same house. I have noticed for years that when you have one case, others occur about the same time. I believe with Dr. Huntington that it is due to a neuritis. The use of cocaine in a basis of lanoline, which facilitates its absorption, is an excellent means of relieving the pain. When herpes zoster affects patients suffering from hemiplegia it is apt to be very severe and difficult to heal.

Dr. J. H. Parkinson: Regarding the location of this disease, in my own experience, in the short space of two weeks I had two cases affecting the side of the neck and extending to the scalp. In one of these the eruption was well marked on the right side of the face. One of these cases lived 20 miles from town, the other in this city. I have observed that these cases occur in groups, and, with Dr. Power, my observation has been that the general condition of the patient has very little to do with the disease. It appears to be purely local in character. Regarding the statement of the author that arsenic has been known to have a causative influence, I may say that I have used this drug in most of the cases I have treated, and apparently with benefit. In addition to constitutional treatment, I have usually found it necessary to employ sedatives, both local and general.

Dr. W. E. Briggs: As to the general treatment of herpes zoster I have nothing to say, but I have had a few cases which implicated the eyes which needed attention. A few months ago I had a patient under treatment who had suffered from severe herpes implicating the forehead, temple, and left eye. The cornea had been extensively ulcerated as a result, and the eye was quite blind as well as painful. There is no need to go into the treatment of the case, especially as the eye conditions produced by herpes zoster require the same treatment as affections of the eye arising from other causes.

Dr. G. A. White: The subject of herpes zoster is one that interests us all, and in my own practice it comes up about every two or three months. It is a disease confined chiefly to the territory of the nerves of the spinal column, but we sometimes see it attack the supraorbital nerve and some others. It is a neuritis exploding in the skin, dependant upon a constitutional disturbance of tubercular, syphilitic, or malarial origin. In this climate it is mostly of malarial origin, and therefore is amenable to anti-malarial treatment. It is a self-limiting disease, usually ending in two weeks. In my own practice I can recall a second attack in the same individual, in the same place, but once. In this case the disease extended around the left side from the third or fourth dorsal vertebra. In the first attack there were ordinary herpetic patches, but the second, some eight months later, left some deep sloughs which were slow to heal. He is now free from local skin trouble, but complains of neuralgia along that region.

DR. J. R. LAINÉ: I believe herpes zoster to be a peripheral neuritis, and that malarial poisoning, rheumatism, and gout are predisposing causes. I attach little or no importance to contusion or injury to the nerve as a cause of zoster. To relieve pain and abort the eruption I prefer a solution of 20 grains argenti nitras to the ounce of spiritus, ether nit. applied over the new eruption with a large camel's hair brush. It should be applied early before vesication and ulceration has taken place. It dries at once, and it is for this reason ether is used. If the solution is applied late some vesication may follow. In such a case the moist and loose cuticle should be removed and finely triturated oxide of zinc freely powdered over the raw surface. This dries and heals it quickly. The solution should be applied to new eruption as it appears, but need not always be reapplied to the original surface. Pain and distress is quickly relieved. I have treated a number of cases in this way (one within a few days), and all with gratifying results.

DR. F. GUNDRUM: I think the profession all agree that it is due to a neuritis—interstitial neuritis. We have it occurring in all conditions and under all circumstances. Traumatism, in the very healthy, in the broken down, and in the rheumatic, and especially those subject to eczemas, and also in the gouty, so that, as no microbe has been found to which we can lay the mischief, we will have to accept an interstitial neuritis pathology. This neuritis may occur in the posterior nerve roots of the ganglia, or it may occur in any portion of the nerve. I do not think the course of the disease would demonstrate to one that it was in the root, or in one or more of the branches. I have not heard anything said about aborting the disease—not letting it go on to vesication. Many writers, especially Morrison, has said that this can be done, and if it can, it saves the patient a great deal of pain. He recommends highly the application of ichthyol. There is another application which I think is very good, and that is iodoform collodion, painting the papules with the solution.

DR. H. L. NICHOLS: I have found the application of a lotion of lime water, sulphur, and morphine to work admirably by saturating gauze with it and applying it to the eruption, covering with oiled silk. I seldom use ointments, but after using the lotion, if there are any ulcerations, I then use the dry powders—oxide of zinc or boracic acid. Constitutionally, arsenic and iron are my favorites.

DR. T. A. KEABLES, of Bodie: Collodion is my favorite as a local application in this disease, and arsenic is the sheet anchor for constitutional treatment. I believe the disease is largely of malarial origin. In the sections in which I lived previous to my residence in California these cases had been of frequent occurrence in my practice. In the mountains of Mono I have never had but one case.

DR. T. W. HUNTINGTON: There are points in connection with the etiology and treatment of herpes zoster which appear to be illy defined. I wish to confirm at the outset the opinion expressed by Dr. W. A. Briggs, which, by the way, is in accord with the teaching of Erb, that the disease depends upon a neuritis, which is accompanied by a more or less positive structural change. This must be clearly distinguished from an inflammation of the neurilemma. The herpetic spots which are such a prominent and annoying symptom are in light of present knowledge to be regarded as but a local manifestation of the real lesion, and may appear at some distance from it. In a word, the herpetic eruption is due to a trophic change in the integument at the peripheral end of the affected nerve. In dealing with this disease when located in its more frequent seat—the walls of chest and trunk—it has long been my practice to search for the origin of the trouble at or near the point of emergence of the nerve from the spinal cord. In pursuance of this course there will almost invariably be disclosed by gentle percussion along the spine one or more areas of tenderness over certain vertebræ. These areas clearly mapped out, the treatment is positively indicated. A blister or two, or more blisters applied over the sensitive areas, have proven in my experience a specific in a very large proportion of cases. This course relieves the intense pain attending the skin lesion more completely and satisfactorily than any other measure advocated. In fact, I pay almost no attention to the herpetic spots, unless it be to paint them with a solution of cocaine and collodion, 10 grains to the ounce. The cases having a clearly defined traumatic origin are worthy of special notice. Some of these, depending upon the nature of the injury, its severity, and permanence, may be incorrigible, while many of them are amenable to persistent rest and local vesication. I recall one case in which a severe strain and concussion of the lower part of the spine was attended a few days later by an exhibition of a large number of herpetic spots, following the distribution of the greater and lesser sciatic nerves. Another case, due to a tolerably unimportant strain of the dorsal vertebræ, resulted in a most persistent and exhaustive herpetic attack. This patient was an aged woman, and she succumbed after two months to complications superinduced by this affection. In answer to a question raised by Dr. Lainé, as to why herpes did not usually attend the condition known as sciatica, emphasis was placed upon the fact that sciatica in its classical form is in no sense a neuritis, but an inflammation of the neurilemma.

DR. T. A. SNIDER: I did not intend in my paper to allude to traumatic herpes zoster, it was to the idiopathic. In my investigations I find most authors attribute it to the ganglionic system. In those cases where autopsies have been made, a disease of the nerve along which the neuralgia extends has been found, and in every case it has been demonstrated that the spinal cord is not diseased, but the ganglia.

SAN FRANCISCO COUNTY MEDICAL SOCIETY.

Regular Meeting, January 12, 1897.

HENRY GIBBONS, JR., M.D., in the Chair.

New Members.—T. B. LELAND, M.D., EMILY W. HARRISON, M.D., and E. SPENCE DEPUY, M.D., were duly elected members of the Society.

Report of the Board of Trustees.—DR. HENRY GIBBONS, JR., as Chairman of the Board of Trustees, presented his annual report, which showed that there was a balance on hand to the credit of the Society of $5,500.

DR. FRANK DONALDSON read a paper on "The Influence of Certain Heart Murmurs and of Family Phthisis in Estimating a Risk for Life Insurance" [published at page 124].

DR. G. W. DAVIS said his views as to the hereditary nature of phthisis pulmonalis had changed much within the past few years. Life insurance companies go too far in their limitations in this connection as well as in refusing applicants with heart murmurs.

DR. G. F. SHIELS: A certain physician in San Francisco was refused a policy. He was referred to me for examination. He had a distinct blowing murmur at the base of the heart and was anemic. We all know that an anemic murmur is part of the diagnosis in anemic cases. Regarding hereditary influence, it produces bad soil, but such persons, often, never have the disease. The medical directors of life insurance companies should make the companies take more chances.

Pyelo-nephritis.—DR. FRICK, U. S. Army, exhibited a kidney from a case of pyelo-nephritis. The patient, 20 years of age, was the wife of a soldier. She showed no history of contagion. For the past 12 years she had pain in the back and remittent and intermittent fever. About ten days ago she came to the speaker with a sort of pleuritic pain in the side. Examination showed a prominent tumor in the right lumbar region, and a diagnosis of pyelo-nephritis was made. Examination of the urine showed a large quantity of albumin, about one-fourth in volume; it was also loaded with pus. The case was operated upon in the usual way. There were many adhesions and an absence of renal fat. The kidney shows a good sized calculus within a cavity close to the posterior wall. The patient is now progressing favorably and secreting a fair amount of urine.

Colloid Ovarian Cystoma.—DR. H. KREUTZMANN presented a specimen from a case of ovarian cystoma of a colloid character, the size of a man's head, which he had removed a few days since. The interesting feature of the case was the rapid growth of the tumor. About eight months ago the patient had been delivered by Dr. Artigues, no tumor being found at that date. A few weeks ago Dr. Artigues discovered quite a large tumor, which had since grown very rapidly. In operating, the pedicle was treated in the retroperitoneal manner. There was no ligating *en masse*. The peritoneum covering the pedicle was separated from that of the tumor, the blood vessels ligated, and the peritoneal opening sutured. In this way there is no open surface and absorbable ligature material can be used. The speaker said he did not claim any priority for this method; it was simply the application of general surgical principles to the special purpose of removing ovarian tumors, diseased tubes, and ovaries, and uterine fibroids.

The Kuhlman Resolutions.—The following resolutions by DR. C. G. KUHLMAN were next taken up in the form of a committee report upon them. The resolutions were originally introduced at the October meeting of the Society, but, owing to the lateness of the hour, their consideration was postponed until the November meeting. On that occasion a committee, consisting of DRS. C. E. FARNUM, J. H. BARBAT, W. F. CHENEY, and E. E. KELLY was appointed to report on the matter. Owing to press of business this report was not considered at the December meeting, and, therefore, now came up for action. The original resolutions are as follows:

WHEREAS, Certain incorporated bodies, and certain so-called fraternal, charitable, and benevolent societies, have, within this city and county, in pursuance of certain clauses inserted in their laws, entered into "contracts" with certain medical men, members of this Society, whereby medical and surgical services are rendered by them to the members of said bodies, regardless of the financial conditions of said members, and also regardless of the charges specified in the "Fee Bill" adopted by this Society; and

WHEREAS, The State Medical Society and several county medical societies throughout this State have adopted resolutions condemning said "Medical Contract Systems;"

Resolved, That it is the sense of this Society that said medical contract systems are pernicious, for the following reasons: (1) They operate to isolate and remove from general competition about 75 per cent. of the sick in this city and county. (2) They concentrate fully 75 per cent. of the sick in this city and county in the hands of about one-tenth of the members of the medical profession. (3) They enable unscrupulous, undignified, and unqualified physicians to exist as such, contrary to the laws of the survival of the fittest, and the best interests of humanity. (4) They pauperize the scrupulous, dignified, and qualified members of our honorable profession, whose appreciation of their calling is such as to not allow them to stoop to such nefarious practices. (5) They operate as pauperizing agents upon the masses by lulling them into years of false security, during which they neglect to provide by proper "economic methods" for the legitimate expenses of "competent medical services and honest medicines" during serious illness requiring "skill" not possessed by the average "contract doctor." (6) They cause substitution of drugs and other dishonest "prescription practices" on the part of physicians and pharmacists, as neither can do justice to himself nor to the sick, under contracts that limit the price of prescriptions to 15 to 25 cents each, (7) They operate to prevent "scientific medical investigations," as no scientific physician can afford to spend the time necessary for a proper investigation of a case where he is limited by "contract" to a few cents per visit. (8) They deprive the "sick" of proper and timely "medical consultation," ofttimes disastrous to the life of the patient, for the following reasons: (*a*) The contract makes no provision for this most valuable "aid" to the individual physician and patient. (*b*) The patient will not pay a ' consultation fee" when his contract calls for necessary medical attendance and medicines during illness, and the Society regards such procedure as an admission of incompetency. (*c*) A contract doctor would rather allow his patients to die than to call in a "consultant" in a case where he would not only have to stand the expense himself, but run the risk of being exposed to the rest of the fraternity as a contract doctor. (9) They lower the "scientific standard" of medical men, as the only qualifications required of "contract doctors" are political cunning and unscrupulousness. (10) They lower the physical and moral standard of medical men, as "contract doctors" must quite frequently participate in "nightly orgies" with members of the "ring," upon whose influence their "jobs" depend, where food, drink, and language incompatible with the physical and mental healthfulness of brain-workers, are freely dispensed. (11) They destroy that peculiar inherent scientific and ethical harmony, upon the lines of which alone scientific medical men can act in unison, to carry out the great objects of their profession, namely: the prevention, amelioration, and cure of disease. (12) They constitute a premeditated malicious conspiracy on the part of unworthy, ambitious, and avaricious medical men, against the best interests of the medical profession and of humanity in general.

Resolved, (1) That no person shall be eligible to membership in this Society who shall, after the adoption of these resolutions, enter into any contract, written, verbal, expressed, or implied, with any individual, corporation, society, or organization, to furnish medical and surgical services at a rate below the charges specified in the "Fee Bill" adopted by this Society. (2) That any member of this Society who shall, after the adoption of these resolutions, enter into any contract, written, verbal, expressed, or implied, with any individual, corporation, society, or organization, to furnish medical or surgical services at a rate below the charges specified in the "Fee Bill" adopted by this Society, shall be expelled. (3) That nothing contained within these resolutions shall be so construed as to apply to any contract (of not more than one year's duration) entered into prior to the adoption of these resolutions, nor to any salaried municipal medical officer, or resident physician connected with a hospital not supported by an assessed membership.

Resolved, That these resolutions shall go into effect immediately upon their adoption.

The report of the committee advocated the adoption of some resolutions authorizing a conference of the Society with the local homeopaths and eclectics for the purpose of formulating a plan of action similar to that which had been adopted by the Santa Clara County Medical Society.

DR C. G. KUHLMAN said: Personally, he was satisfied with the agitation in California and elsewhere in regard to this subject; two-thirds of the county societies in California have agreed to resolutions similar to those which he had proposed, and in accordance with the State Society's report at the meeting in Los Angeles. He was decidedly opposed to any appeal to eclectics and homepaths.

DR. C. E. FARNUM thought it was a good plan to follow the procedure of other county societies, and it was not out of place to ask all licensed physicians to cease taking contract lodge practice.

DR J. ROSENSTIRN: Contrary to my usual custom, I cannot refrain from agreeing with Dr. Kuhlman. I do not believe in recognizing the eclectics and homeopaths. They are either knaves or fools, and I cannot join in the support of these resolutions.

DR. J. C. STINSON said the resolutions should be rejected in order to preserve the dignity of the profession.

A motion to postpone action on the resolutions, as introduced by the committee, was offered, but was voted down. The Chair ruled that the report of the committee was next in order and should be disposed of. On motion of DR. KUHLMAN, seconded by DR. STINSON, the Society voted not to adopt the report. This leaves the original resolutions still on the table.

REVIEWS AND NOTICES.

OBSTETRIC ACCIDENTS, EMERGENCIES, AND OPERATIONS. By L. Ch. Boislinière. A.M., M.D., LL.D., late Emeritus Professor of Obstetrics in the St. Louis Medical College; Consulting Physician to the St. Louis Female Hospital and to the St. Ann Lying-in Asylum, etc. Profusely illustrated. Philadelphia: W. B. Saunders. pp. 381. Price, $2.00 net.

There is no excuse for new books on any medical subject unless the author has new facts to present. Every man has his own way of stating old facts, and one man's way may be more entertaining than another's; but that does not constitute a reason for a new book. The book in question is by a well known teacher, and is written in an interesting style, with anecdotes introduced from the writer's large experience, that are undeniably entertaining, but scarcely worth the publication of a new work for their presentation. The facts, from a scientific point of view, are not new, and, as a rule, can be found more fully explained in other books on obstetrics. The opinions of other men are freely quoted, on the management of the various accidents and emergencies, and the illustrations are almost all borrowed from another extensive work on obstetrics, recently published by the same firm that puts this out. The most valuable chapter, containing the most new matter, is that on symphyseotomy, giving particularly the methods of French obstetricians, and bringing the subject well up to date. On the whole, this book will furnish a pleasant review, to those who read it, of the subjects of which it treats; but it is a book that one could get along without

A STANDARD DICTIONARY OF THE ENGLISH LANGUAGE—upon original plans, designed to give in complete and accurate statement, in the light of the most recent advances in knowledge and in the readiest form for popular use, the orthography, pronunciation, meaning and etymology of all the words, and the meaning of idiomatic phrases in the speech and literature of the English speaking people. Prepared by more than two hundred specialists and other scholars. Under the supervision of Isaac K. Funk, D.D., Editor-in-Chief. New York: Funk & Wagnalls Co.; pp. xx. 2318; in one or two volumes. Price, according to binding, $12 to $22.

In this era of dictionary-making a new candidate for favor must present special claims for attention, and this the Standard Dictionary easily accomplishes. It contains 301,865 terms, surpassing the Century by 76,000; Webster's International Dictionary by 176,000, and Johnson's by 251,000; it is, in fact, a vast, yet concise, encyclopedia with numerous illustrations, some of the colored plates being of a character far superior to anything found in works intended for very general circulation. A careful study of the Standard is necessary before its merits will be fully understood; a long familiarity will be necessary before its innumerable excellencies are realized. To one accustomed to consult a dictionary constantly there are a number of points in which it differs distinctl from other works and in which it is essentially helpful. Amongst these ar the use of initial capital letters only with proper names or technical terms and the employment of the double German hyphen in compound words instead, of the single hyphen, which is used for syllabication, at once obviating a difficulty that must often have perplexed the inquirer. There is an excellent chapter on the compounding of words. The rules here given are plain and straightforward, and we believe the editor is not incorrect in saying that he "comes closer than any of his predecessors to an actual record of prevailing usage, and that he has provided a selection of forms worthy of adoption without change." The pronunciation, as tested by correct usage and by comparison with other works, seems to be excellent, preserving the happy medium between the obsolete on the one hand and the provincial and dialectic on the other. Amongst other valuable information contained in the appendix is a chapter on "Faulty Diction," which will bear study by many persons whom force of association has led to carelessness in speaking and in writing. The spelling throughout this dictionary must be regarded as a distinct advance. A very apparent effort has been made towards phonetic spelling, and wherever choice has been possible the simpler form has been preferred. We find throughout a general abandonment of the dipthong. In the spelling of chemical terms the recommendation of the Committee on the Chemical Section of the Medical Association for the Advancement of Science on Spelling, have been generally adopted, and the final e's, in morphine, bromine, quinine, etc., have been dropped. It is with much satisfaction we note the approval by so eminent an authority of various innovations introduced by this journal as early as 1888. Many of these words, as "sulfid" for sulphide, at first glance, seem peculiar, but the eye soon becomes accustomed to new forms, and in modern every day life there does not appear to be any good reason why words in common use should be needlessly cumbersome simply to carry on their face the evidence of their ancestry. In conclusion, we may say that no man who reads and writes English, other than in a merely mechanical way, can well afford to be without the best English dictionary that has so far been published.

THE DISEASES OF INFANCY AND CHILDHOOD. By L. Emmet Holt, M.A., M.D., Professor of Diseases of Children in the New York Polyclinic; Attending Physician to the Babies' Hospital, and to the Nursery and Child's Hospital, etc., New York. Illustrated with 19 full-page colored photogravure plates, and 185 cuts inserted with the text. New York: D. Appleton & Co. Prices: $6.00, cloth; $7.00, sheep; $7.50, half morocco.

Part I of this work considers the hygiene and general care of infants and young children, growth and development of the body, and peculiarities of disease. Noticeable features of this part are the emphasis placed on the weight of the infant as an index of its condition from week to week; and the minute consideration of the various therapeutic measures, including drugs, that are applicable in early life. The next section, on diseases of the newly born (not the new-born), is thoroughly up to date, as shown especially in the account of the acute pyogenic diseases, due to the entrance of pyogenic bacteria into the infant's body. Fifteen clearly written pages are given to this subject, which in most of the older text-books is dismissed with a few lines. Hemorrhages in the newly born are also considered fully, and yet succinctly. The section on nutrition, as its importance demands, is a lengthy one; and there is no more practical or helpful section in the book. It begins with a discussion of the proper food constituents in infancy, and the purposes each subserves in nutrition; gives a clear account of woman's milk, its composition, methods for its examination and conditions affecting it; of cow's milk—the differences between it and woman's milk, and how to overcome them; and of the patent foods, and why all are imperfect substitutes. Infant feeding, in all its various phases, receives most satisfactory consideration; and if this chapter is taken by the profession as a guide, many an infant's life will be saved. The feeding of young children, after the first year, is also given much attention. Under this same section the author discusses inanition, malnutrition, marasmus, scurvy, and rickets, because all are rightly looked upon as due to improper feeding. Diseases of the digestive system take up nearly 200 pages in the book. The whole section is scientific and clear, systematically arranged, and in accordance with modern ideas as to pathology. Much stress is laid upon diet, both in prophylaxis and in actual treatment of these disorders. The infant under one year is particularly the object of the author's attention, here as elsewhere throughout the book. The next section takes up diseases of the respiratory organs, and is more complete than that in any other work on pediatrics with which we are familiar. It is particularly noticeable that much space is devoted to lobar pneumonia; and while the author agrees that catarrhal or broncho-pneumonia is more common under three years, he holds correctly that after that age lobar pneumonia is the more frequent form, as it is in adults. The symptoms and signs of this latter form as it occurs in children, are described with admirable clearness Many beautiful plates illustrating pathological conditions appear in this section, especially in the chapters on pneumonia. In the section on diseases of the circulatory system, the author gives much that is of value regarding the pulse and clinical examination of the heart in infancy. Congenital anomalies are briefly, but clearly described. Pericarditis is shown to be rare, but endocarditis common after the third year. Of valvular lesions, the author states mitral insufficiency to be by far the most frequent. The section on diseases of the uro-genital system contains much that is original; for instance, the consideration of methods of collecting urine from infants for clinical examination; frequency of micturition and physical character of urine in infancy; and the significance of albumin, blood, sugar, pus, urates, and indican when found in the urine of young children. The chapter on enuresis contains nothing new; the author advises atropine as the best drug, administered until full physiological effects are produced. Diseases of the nervous system receive lengthy and careful consideration. No such complete and detailed description of nervous diseases as they occur in children will be found elsewhere, except in a recent text-book devoted exclusively to that subject. The next section gathers up odds and ends not considered in other parts of the book. A chapter on diseases of the blood includes anemia, chlorosis, leucemia, hemophilia, and purpura. A chapter on diseases of the lymphatic glands discusses adenitis in a helpful way, devoting particular attention to tubercular adenitis, or scrofula. Another chapter gives a thorough account of diseases of the bones and joints—a subject not usually considered except in surgical treatises; tuberculous disease of the spine, hip, knee, and phalanges are clearly portrayed, and syphilitic diseases of bone are also described and illustrated so plainly that a mistake in this diagnosis seems impossible. The chapter on skin diseases considers all the more common affections of the skin that occur in infancy and childhood, and contains many useful hints as to treatment. Finally, a chapter on acute inflammation of the ear is given, some eight pages in length; a rather unusual, but most acceptable addition to a work on pediatrics. The next section of the book takes up the specific infectious diseases. Here tuberculosis, syphilis, and malaria are classed with scarlet fever, measles, and diphtheria, as modern teaching warrants. The antitoxin treatment of diphtheria is discussed at length, and indorsed as of first importance. The article on tuberculosis is especially worthy of praise. The last section in the book describes rheumatism, which the author believes is of microbic origin; and diabetes mellitus, in the discussion of which, curious to relate, no reference is made to the pancreas. Taken as a whole, this book is undoubtedly the most scientific and at the same time the most practical contribution yet made on the subject of which it treats.

MEDICAL NEWS.

LICENTIATES OF THE BOARD OF EXAMINERS.

At a meeting of the Board of Examiners, held February 4, 1897, the following were granted certificates to practise medicine in this State:

William H Davis, San Bernardino; Jefferson Med. Coll., Pa., Mar 9,'61.
Lillian E. Dempsey, Vallejo; Med. Dept. Univ Oregon, April 1,'96.
R C Dundass, Los Angeles; Rush Med. Coll , Ill., Mar. 25,'90.
H. C. S. Elliot, Los Angeles; Trinity Univ., Toronto, Canada, April, '89; Coll. Phys. and Surg., Ontario '89; Royal Coll. Phys., Edinburg, Scotland, Jan., '91.
Thomas Feemster, Porterville; St Louis Coll. Phys. and Surg., Mo , Mar. 26,'95.
John Henry Graves San Francisco; Cooper Med. Coll., Cal., Dec. 8,'96.
F. H. Hadley, San Francisco; Cooper Med. Coll , Cal., Dec. 8,'96.
John M. Kane, Oakland; Cooper Med. Coll , Cal., Dec 7,'93
C. P. H. Kjærbye, San Francisco; Univ. Copenhagen, Denmark, Feb. 6,'92
Arthur Wm. McArthur, Fruitvale; McGill Univ., Montreal, Canada, Mar 31,'96.
Jens Molgaard, Salinas; Med. Dept. State Univ. Iowa, Mar 13,'95.
Mayela G. Murphy, San Rafael; Cooper Med. Coll., Cal., Dec 8,'96.
Mary Leonard Murphy, San Francisco; N. W. Univ , Women's Med. School, Ill., June 14,'94.
Wm. H. Parish, Monmouth, Or.; Med. Dept Willamette Univ., Or., April 2,'89.
Howard L Power, Bridal Veil, Or., Rush Med. Coll., Ill., Feb. 21,'88.
Louis M. Young, San Francisco; Rush Med. Coll , Ill., Mar. 31,'91.

CHAS. C. WADSWORTH, Secretary.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department of the U. S. Army (Division of the Pacific) from January 20, 1897, to February 20, 1897.

The following named officers will be relieved from duty at the Army Medical School, Washington, D.C., upon completion of the course, about March 12, 1897, and ordered to take station as follows: First Lieutenant Franklin M. Kemp, Assistant Surgeon, Vancouver Barracks, Wash.; First Lieutenant George A. Skinner, Assistant Surgeon, Fort Sherman, Idaho; First Lieutenant William E. Richards, Assistant Surgeon, Fort Grant, Arizona.

Major Edward B. Mosely, Surgeon, ordered, upon the expiration of his leave of absence, to Benicia Barracks, Cal., relieving Major Curtis E Munn, Surgeon. Major Munn, on being thus relieved, is ordered to Fort Logan, Cal., for duty, relieving Major Augustus A De Loffre, Surgeon. Major De Loffre, on being thus relieved, is ordered to Fort Sam Houston, Texas, for duty.

First Lieutenant Francis A. Winter, Assistant Surgeon, relieved from duty at Fort Grant, Arizona, and ordered to Washington, D.C., for examination as to his fitness for promotion.

Major James C. Merrill, Surgeon, will be relieved from duty at Fort Sherman, Idaho, upon the arrival of First Lieutenant G. A. Skinner, Assistant Surgeon, and ordered to report to the Surgeon General for duty.

Leave of absence for one month, to take effect about the 1st proximo, is granted Captain William O. Owen, Assistant Surgeon, Fort Bayard, New Mexico.

Official List of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service (District of the Pacific) from January 20 to February 20, 1897.

L. E. Cofer, Assistant Surgeon, relieved from waiting orders and directed to proceed to San Diego, Cal., and assume command of service.

J. H. Oakley, Assistant Surgeon, to report at Bureau February 3, 1897, for examination for promotion.

Rupert Blue, Assistant Surgeon, granted leave of absence for ten days from Feb. 8, 1897. Upon expiration of leave of absence, to proceed from New York, N. Y., to San Francisco Quarantine Station for duty.

J. H Oakley, Assistant Surgeon, granted leave of absence for thirty days from Feb. 8, 1897. Upon expiration of leave of absence, to proceed to Philadelphia, Pa., for duty.

W. M Jordan, Assistant Surgeon, when relieved from duty at San Francisco Quarantine, about March 1, 1897, to proceed to Marine Hospital San Francisco, Cal., for duty.